EPSON® PowerLite® 53c/73c Multimedia Projector

User's Guide

Important Safety Information

WARNING: Never look into the projector lens when the lamp is turned on; the bright light can damage your eyes. Never let children look into the lens when it is on. Never open any cover on the projector, except the lamp and filter covers. Dangerous electrical voltages inside the projector can severely injure you. Except as specifically explained in this *User's Guide*, do not attempt to service this product yourself. Refer all servicing to qualified service personnel.

WARNING: The projector and its accessories come packaged in plastic bags. Keep plastic bags away from small children to avoid any risk of suffocation.

Caution: When you replace the lamp, never touch the new lamp with your bare hands; the invisible residue left by the oil on your hands may shorten the lamp life. Use a cloth or glove to handle the new lamp.

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Welcome

The EPSON® PowerLite® 53c and 73c are micro-portable projectors that offer up to 1700 ANSI lumens of brightness (1500 lumens for the PowerLite 73c). From classrooms to auditoriums, your full-color presentations and videos will be bright and visible even in ordinary indoor lighting.

Images are displayed at a resolution of 800 × 600 pixels (PowerLite 53c) or 1024 × 768 pixels (PowerLite 73c). Three 0.7-inch LCDs provide a 500:1 contrast ratio for incredibly vivid images and clear text. Support for S-Video contributes to theater-quality performance.

You can connect the projector to a wide range of computers, including PCs and laptops, Apple® Macintosh,® Power Macintosh® series (including G3 and G4 systems), PowerBook® computers, many iMac® and iBook® series systems, and high-end workstations such as the Sun® SPARCstation.™ With EPSON's patented SizeWise™ technology, the projector supports computer displays ranging from VGA through UXGA.

You can use any of the following video sources: HDTV, VCR, DVD player, gaming console (such as Microsoft® Xbox,™ Sony® PlayStation® 2, and Nintendo GameCube™), camcorder, digital camera, or laser disc player. The projector supports NTSC, PAL, and SECAM video formats.

For enhanced presentation control, you can connect a USB mouse or laptop directly to the projector for running slide shows, and with the external monitor port you can view images on both a desktop monitor and on the screen.

Getting the Most from Your Projector

Depending on your presentation, you can take advantage of any or all of these options:

- Connecting to a laptop or other computer
  If you want to connect to a PC laptop or Macintosh PowerBook or iBook, see the *Quick Setup* sheet or page 12 of this guide. To connect to a desktop computer or workstation, see Appendix A.
- Connecting to video sources
  You can connect a DVD player, VCR, HDTV, camcorder, laser disc player, digital camera, or any other video source to your projector. You can connect both computer and video sources at the same time and easily switch between them. See page 15 for instructions.
- Using the remote control
  The remote control lets you switch from computer to video sources, zoom in to your image, and adjust many other projector features. For details, see Chapter 3.

  By connecting an additional cable, you can also use the remote control as a wireless mouse. This lets you click through computer-based presentations (such as PowerPoint®) from up to 20 feet away. For more information, see page 34.
- Including sound in your presentation
  If your presentation includes sound, you can connect an optional audio cable to use the projector's built-in speaker. For details, see page 14 (for laptops) or Appendix A (for other systems).

note

Most of the projector's features can only be accessed with the remote control. To avoid losing the remote control, place it in the remote control storage compartment beneath the side of the projector.

Using Your Documentation

To connect the projector to your laptop and get your presentation running fast, see the *Quick Setup* sheet that came in your owner's kit or see page 12 of this guide.

This book contains all the information you need to set up and use your projector. Please follow these guidelines as you read through it:

- **Warnings** must be followed carefully to avoid bodily injury.
- **Cautions** must be observed to avoid damage to your equipment.
- **Notes** contain important information about your projector.

Getting More Information

Need tips on giving presentations? How about quick steps for setting up your projector? Here's where you can look for help:

- www.presentersonline.com
  Includes a library of articles covering presentation tips, tricks, and technology. The site provides templates, clip art and sound clips, as well as Presenters Services to use on the road. Even more resources and services are available if you register to join the Presenters Club®—and it's free.
- Owner's kit
  Includes your *Quick Setup* sheet, warranty brochures, and EPSON PrivateLine® Support card. Store this *User's Guide* in the envelope and keep the envelope with your projector at all times.
- *Quick Setup* sheet
  Gives you all the instructions you need to get your projector set up and connected to a laptop or PowerBook computer.
- Built-in help system
  Provides assistance for common problems. Available from the Help button on the projector. See page 62 for details.
- support.epson.com
  Download FAQs and e-mail your questions to EPSON support.

If you still need help after checking this *User's Guide* and the sources listed above, you can use the EPSON PrivateLine Support service to get help fast. Call (800) 637-7661 and enter the PIN on the card in your owner's kit. See page 72 for more information.

Registration and Warranty

Your projector comes with a basic carry-in warranty and an international warranty that let you project with confidence anywhere in the world. For details, see page 90 and the warranty brochure included in your owner's kit.

In addition, EPSON offers free Extra Care℠ Road Service. In the unlikely event of an equipment failure, you won't have to wait for your unit to be repaired. Instead, EPSON will ship you a replacement unit anywhere in the United States or Canada, usually via overnight delivery. See the brochure in your owner's kit for details.

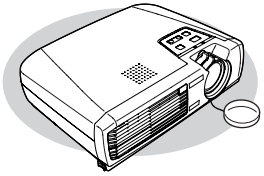
To register, complete the registration form in your owner's kit and mail it to EPSON. Or register your product online at:

http://epsonwebreg.info2.net/

Registering also lets you receive special updates on new accessories, products, and services.

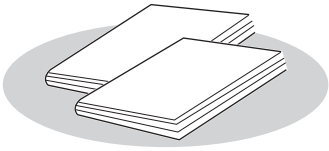
Unpacking the Projector

After unpacking the projector, make sure you have all the parts shown below:



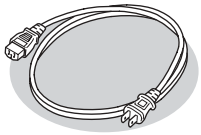
Projector

Remote control

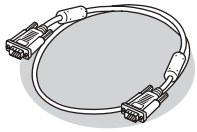


Documentation

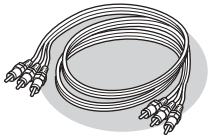
Soft carrying case



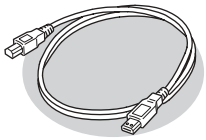
Power cord



Computer cable



RCA A/V cable



USB mouse cable

Save all packaging in case you need to ship the projector. Always use the original packaging (or equivalent) when you need to send the projector to another location.

If you are moving the projector by hand, use the carrying case included with the projector.

Additional Components

Depending on how you plan to use the projector, you may need additional components:

- To receive an S-Video signal, you need an S-Video cable. (One is usually provided with your video device.)
- To receive a component video signal from a VCR or other video device, you need a D-sub, 15-pin, VGA to component video cable (available from EPSON; see page 7).
- To amplify your computer's audio through the projector's sound system, you need a computer audio cable (male-to-male 3.5-mm stereo miniplug cable). See your computer or electronics dealer to obtain this cable.
- Some older PowerBooks and Macintosh desktop models may need the Macintosh adapter set shown on page 82 (available from EPSON; see page 7). Older iMac systems may need a special adapter to provide a VGA output port; see your computer dealer.

Optional Accessories

To enhance your use of the projector, EPSON provides the following optional accessories:

Product	Product number
Replacement lamp and air filter	V13H010L21
Samsonite® wheeled soft case Soft shoulder bags (projector/laptop)	ELPKS35 ELPKS43 ELPKS45
Distribution amplifier	ELPDA01
Component video cable (VGA to component video)	ELPKC19
Macintosh adapter set (includes monitor adapter and desktop adapter)	ELPAP01
50-inch portable pop-up screen 60-inch portable pop-up screen 80-inch portable pop-up screen	ELPSC06 ELPSC07 ELPSC08
High resolution document imager Motion presentation camera High resolution document camera	ELPDC02 ELPDC03 V12H064020
Kensington® security lock	ELPSL01
Ceiling mount Ceiling plate Suspension adapter	ELPMB39 ELPMBFCP ELPMBADL

You can purchase these accessories from your dealer, by calling EPSON at (800) 873-7766, or by visiting the EPSON Store℠ at www.epsonstore.com (U.S. sales only). In Canada, please call (800) 463-7766 for dealer referral.

1 Setting Up the Projector

This chapter tells you how to set up the projector and connect it to a laptop computer or video source. If you need to connect the projector to a desktop or workstation computer, see Appendix A.

You'll find instructions for the following in this chapter:

- Positioning the projector
- Connecting to a laptop computer
- Connecting to video sources

Positioning the Projector

Before connecting the projector, you need to decide where to place it. The location you choose depends on the size of the room and what you are projecting.

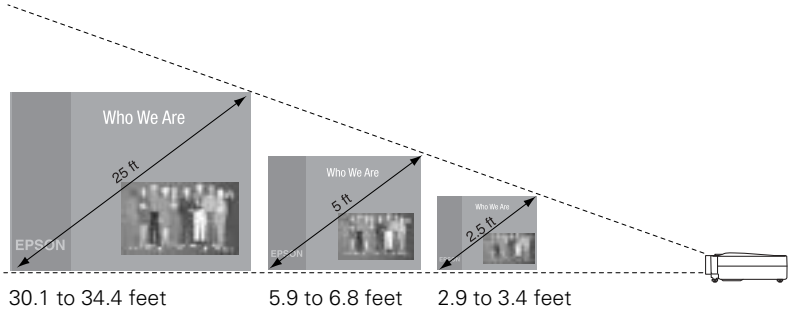
caution
Don't hold or lift the projector by the lens, or you may damage it.

- Place the projector on a sturdy, level surface, between 2.9 and 34.4 feet from the screen.
- Make sure there is plenty of space for ventilation around and under the projector. Leave at least 8 inches between the projector and a wall.
- Make sure the projector is within 6 feet of an electrical outlet or extension cord and within 5 feet of your computer and/or video source.
- Place the projector directly in front of the center of the screen, facing the screen squarely. Otherwise, your image will not be rectangular.

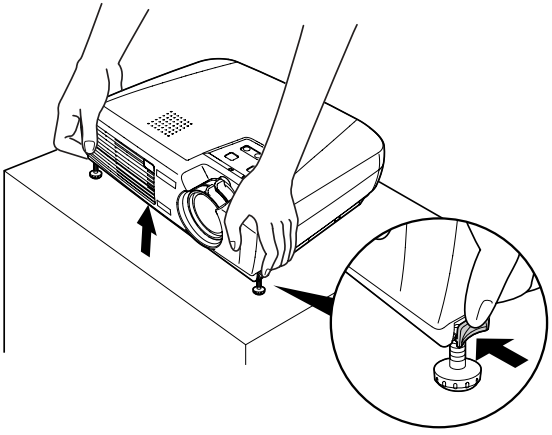
note
It's easier to position the projector when the screen is directly in front of the room. If the screen is placed diagonally in a corner, it's much more difficult to aim the projector correctly at the screen and get a rectangular image.

Most presenters find it convenient to place the projector in front of the audience, leaving as much space as possible between the projector and the screen to get a good-sized image. This lets the presenter stand in the front of the room, face the audience, and remain close enough to the equipment to be able to control it.

Use the figure below as a guideline to help you determine how far from the screen to place the projector. Image size generally increases with distance, but may vary depending on how you position the zoom ring and whether you have adjusted the image size with other settings.



If you place the projector below the level of the screen, you'll have to tilt it up by extending the feet as shown. Tilting the projector upward causes the image to lose its rectangular shape, but the Auto Keystone feature corrects the distortion automatically. If the image does not regain its rectangular shape, the Auto Keystone feature may have been disabled. To turn it on or for more information on keystone correction, see page 27.



If you place the projector level with the bottom of the screen, the image will be rectangular and you won't have to adjust it. If you place the projector higher than the bottom of the screen, the image will still be rectangular, but you won't be able to fill the whole screen with the image.

note

After positioning the projector, you may want to connect a Kensington MicroSaver anti-theft device to the lock port on the back of the projector. You can purchase this from EPSON; see page 7.

Connecting to a Laptop Computer

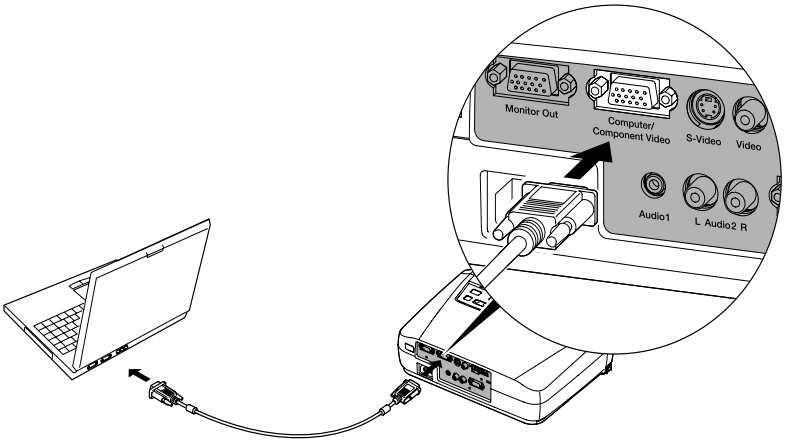
note
To connect to desktops and other computer systems, see Appendix A. If you have an iBook with an RCA video-out port, follow the instructions for connecting to a video device on page 16.

You can connect the PowerLite projector to any computer that has a standard video output (monitor) port, including PC notebook and laptop computers, Macintosh PowerBooks and iBooks, and hand-held devices.

Connecting the Computer Cable

Before you start, make sure your computer and the projector are turned off.

1. Connect one end of the computer cable to the projector's Computer/Component Video port.



2. Connect the other end of the computer cable to your laptop's video-out or monitor port.

   If you're using a PowerBook or iBook and you can't connect the cable, you may need to use the Macintosh desktop adapter as shown on page 82 (available from EPSON; see page 7).

3. Tighten the screws on the connectors.

If you don't need to make any other connections, you can plug in your projector and turn it on. See page 20 for instructions.

note
Laptop configurations vary. See your computer manual for the location of the ports needed to connect your projector.

Connecting the Cable for Remote Mouse Control

4. You can connect an external mouse to the USB Type A port or use the port as a USB hub to connect an external USB device, if you want.

If you don't need to make any other connections, you can plug in your projector and turn it on. See page 20 for instructions.

Amplifying Computer Audio

Your laptop probably has its own sound system; however, it may not be adequate for your presentation. If you need more volume, you can connect a computer audio cable to take advantage of the projector's built-in amplifier and speaker. You can obtain a computer audio cable (3.5-mm stereo miniplug cable) from a computer or electronics dealer.

1. Connect one end of the audio cable to the Audio1 jack on the projector.

2. Connect the other end of the audio cable to your laptop's headphone jack or audio-out jack. (Jack locations vary; see your computer manual if you're not sure which jack to use.)

If you don't need to make any other connections, you can plug in your projector and turn it on. See page 20 for instructions.

Connecting to Video Sources

You can connect a DVD player, VCR, camcorder, laser disc player, digital camera, gaming console—such as Microsoft Xbox, Sony PlayStation 2, or Nintendo GameCube—or any other compatible video source to your projector.

The projector supports HDTV, NTSC, PAL, and SECAM, and automatically detects the video format.

note
The projector does not support TV antenna cable F connectors.

The projector can receive composite video, S-Video, and component video. The type of cable you use depends on the video source:

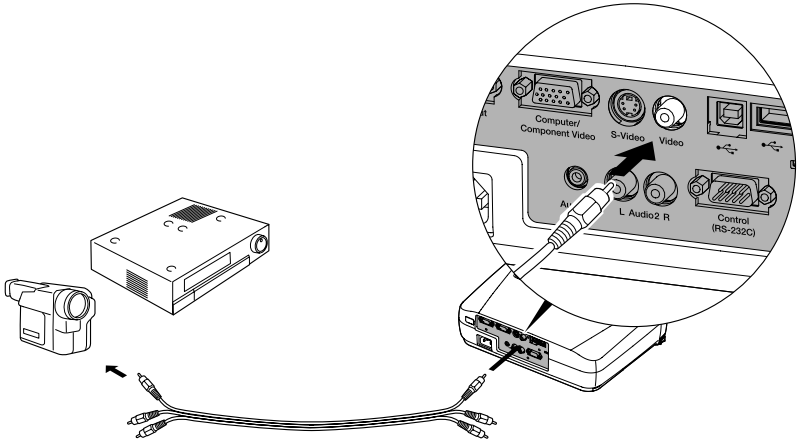
- For composite video, use the RCA A/V cable included with the projector.
- For component video, you will need the optional EPSON component video cable (ELPKC19).
- For S-Video, use the S-Video cable supplied with your video device or obtain one from you electronics dealer.

Follow the instructions below for your type of connection.

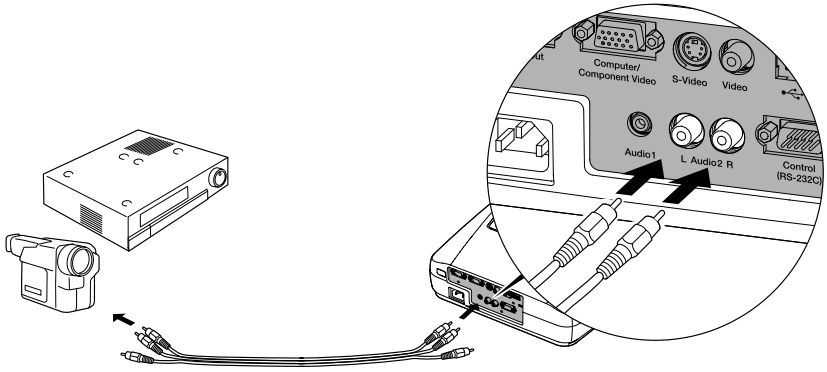
Connecting the RCA Video Cable

Before starting, make sure the projector and your DVD player or other video source are turned off.

1. Connect one end of the yellow RCA plug to the projector's Video jack.



2. Connect the other end of the plug to the video-out jack on your video source.
3. Connect the red and white plugs on the RCA A/V cable to the projector's Audio2 L (white) and R (red) jacks.
4. Connect the red and white plugs on the other end of the cable to the corresponding audio output jacks on your video source.

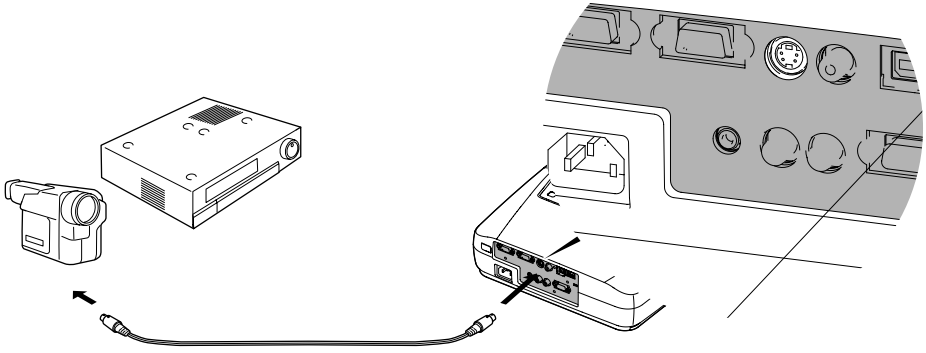


Connecting an S-Video Cable

If your video source has an S-Video jack, you can use it to project a higher quality video image. However, you'll need an S-Video cable, which may be included with your video source, or may be purchased.

Before starting, make sure the projector and your DVD player or other video source are turned off.

1. Insert one end of an S-Video cable into the projector's S-Video port.
2. Insert the other end into the S-Video output port of your video source.



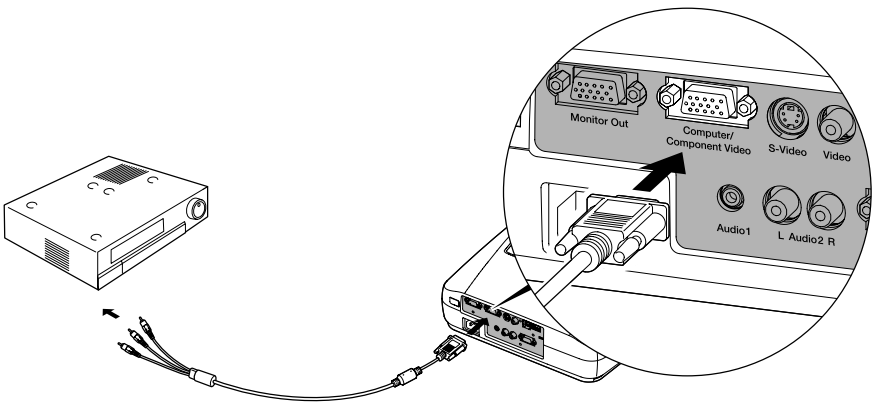
3. Connect the audio plugs on the RCA A/V cable as described on page 16.

Connecting a Component Video Cable

If your video source has component video connectors, you can use them to project a higher quality video image. However, you'll need a component video cable, which can be purchased from EPSON (ELPKC19).

Before starting, make sure the projector and your DVD player or other video device are turned off.

1. Connect the large end of the component video cable to the projector's Computer/Component Video port.
2. Insert the three ends of the component video cable into the R, G, and B ports on your video source.



3. Connect the audio plugs on the RCA A/V cable as described on page 16.
4. After you turn on the projector, use the Video menu to set the Input Signal to YCbCr or YPbPr. See page 40 for more information.

2 Using the Projector

Once you've set up the projector, you're ready to turn it on, adjust the image, and give your presentation.

Although you can operate the projector without it, the remote control lets you use additional features. See Chapter 3 for instructions on using the remote. This chapter covers the following:

- Turning on the projector and other equipment
- Adjusting the image
- Shutting down the projector

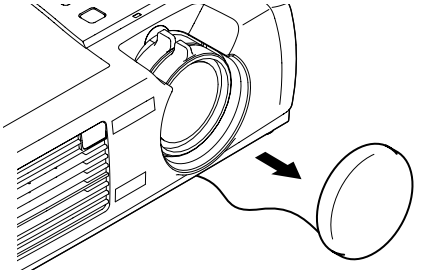
Turning On Your Equipment

Make sure your projector and other equipment are set up and connected correctly, as described in Chapter 1 or Appendix A. Then turn on your projector, as described below, followed by any equipment you've connected to it. You can turn on your computer and video equipment in any order, but if you have both a computer and video source connected, you may have to switch to the desired source as described on page 21.

Turning On the Projector

Follow these steps to plug in and turn on the projector:

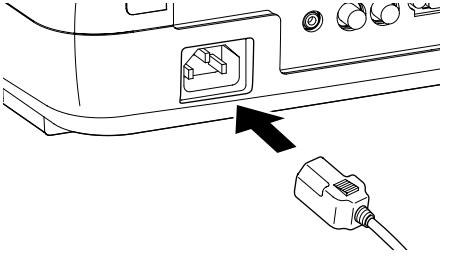
1. Remove the lens cap.



caution

Do not use the projector with the lens cap in place. The heat generated by the lamp can damage the cap.

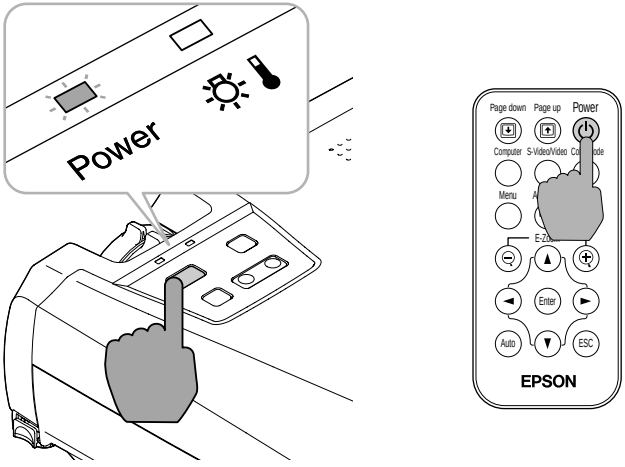
2. Connect one end of the power cord to the projector's power inlet.



3. Connect the other end to an electrical outlet.

   The power light on top of the projector turns orange, indicating that the projector is receiving power but not yet turned on. Wait until the light stops flashing, but stays lit orange.

4. Press the ⏻ Power button on top of the projector or on the remote control.



Projector Remote control

The power light flashes green as the projector warms up, and the projection lamp comes on in about 40 seconds. The power light stays green.

5. Do one of the following:

   - If you're using a computer, turn it on or restart it. In a few moments, you should see your computer display projected.

     (Windows® only: If you see a message saying that it has found a plug-and-play monitor, click Cancel.)

   - If you're projecting a video, press the Source button on top of the projector or the S-Video/Video button on the remote control to switch to your video source. Then press the Play button on your DVD player or other device.

If a projected image fails to appear, see the next section for help.

Once you see your image, turn to page 25 for instructions on focusing and making other image adjustments.

When you're done with your presentation, shut down the projector as described on page 29. Shutting down the projector correctly prevents premature lamp failure and possible damage from overheating.

warning

Never look into the lens when the lamp is on. This can damage your eyes, and is especially dangerous for children.

What To Do If You See a Blank Screen

If you see a blank screen or a blue screen with the message No Signal after turning on your computer or video source, try the following:

- Make sure the cables are connected correctly, as described in Chapter 1 (for laptops and video sources) or in Appendix A (for desktop computers and other sources).
- Make sure the power light is green and not flashing and the lens cover is off.
- Try restarting your computer.
- Press the Source button on top of the projector to select the correct source. (Allow a few seconds for the projector to sync up after pressing the button.)

If you're using a PC laptop:

- Hold down the Fn key and press the function key that lets you display on an external monitor. It may have an icon such as or it may be labelled CRT/LCD. Allow a few seconds for the projector to sync up after pressing it. Check your laptop's manual or online help for details.

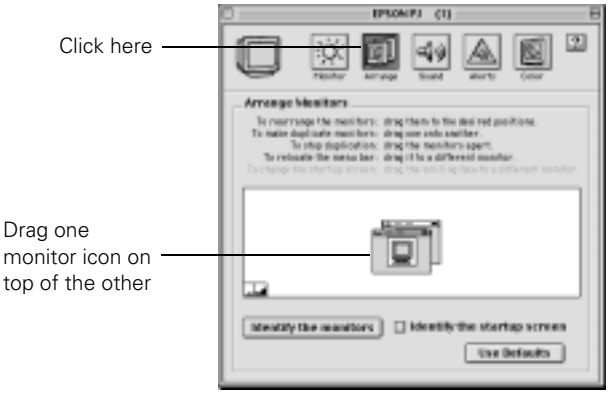
  On most systems, the or CRT/LCD key lets you toggle between the LCD screen and the projector, or display on both at the same time.

- Depending on your computer's video card, you might need to use the Display utility in the Control Panel to make sure that both the LCD screen and external monitor port are enabled. See your computer's documentation or online help for details.

If you're using a Macintosh laptop with OS 9.x or earlier:

You may need to set up your system to display on the projector screen as well as the LCD screen. Follow these steps:

1. From the Apple menu, select Control Panels, then click Monitors or Monitors and Sound.
2. Click the Arrange icon.



3. Drag one monitor icon on top of the other.

If the Arrange option isn't available, you may need to select one of the Simulscan resolution settings:

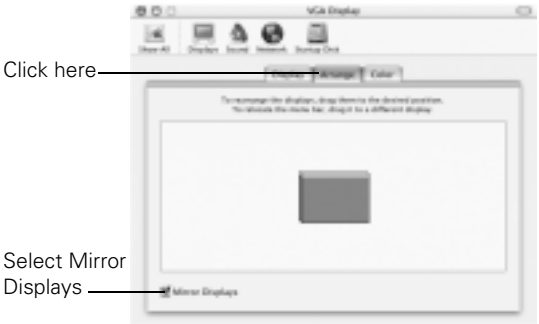
1. Click the Monitor icon, if necessary.

2. Select a Simulscan resolution as shown. (Allow a few seconds for the projector to sync up after making the selection.)

If you're using a Macintosh laptop with OS X:

You may need to set up your system to display on the projector screen as well as the LCD screen. Follow these steps:

1. From the Apple menu, select System Preferences, then click Displays.
2. Select VGA Display or Color LCD, click Arrange or Arrangement, and make sure Mirror Displays is checked.



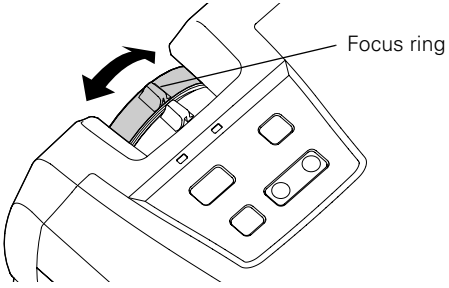
Adjusting the Image

Once you see your image, you'll need to make certain adjustments:

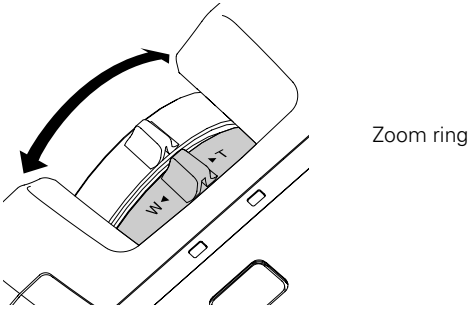
- To focus or zoom your image, see below.
- If the image is too high or too low, you can reposition it. See page 26.
- If the image isn't square, see page 27.
- To select the correct color mode for your image and surroundings, see page 28.

Focusing and Zooming Your Image

Rotate the focus ring to sharpen the image.



Rotate the zoom ring to reduce or enlarge the image.

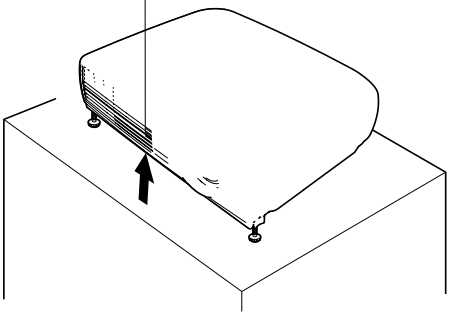


You can also change the image size by moving the projector closer to or farther away from the screen. You can use the E-Zoom buttons on the remote control to zoom in on a portion of the image. See page 33 for instructions.

Adjusting the Height of Your Image

If the image is too low, you can raise it by extending the projector's feet.

1. Stand behind the projector. Press the blue foot release levers and lift the front of the projector. This unlocks the feet.



2. Once the image is positioned where you want it, release the levers to lock the feet in position.
3. To fine-tune the height of the image, rotate the projector's feet.

If the image is no longer rectangular after raising it, see the next section.

Adjusting the Ima

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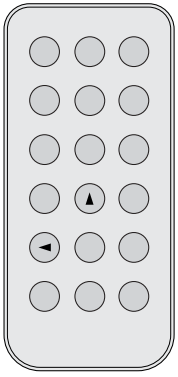
Adjusting the Color Mode

You may want to adjust the color mode to select a different setting that is appropriate for the image you're projecting and the surroundings in which you're projecting it.

If you're projecting computer images, the default color mode is Normal, which is appropriate for presentations in bright rooms. For video or S-Video images, the default color mode is Theatre, which optimizes video images using natural colors.

You can also select one of these color modes:

Color mode	Description
sRGB	Use when projecting computer images conforming to the sRGB color standard (the default setting when projecting from a computer with analog video)
Meeting	Use when you want images projected using their original tints, without any color enhancements.
Presentation	Use when you're projecting a presentation in a dark room.
Game	Use when you're projecting video games in a bright room.

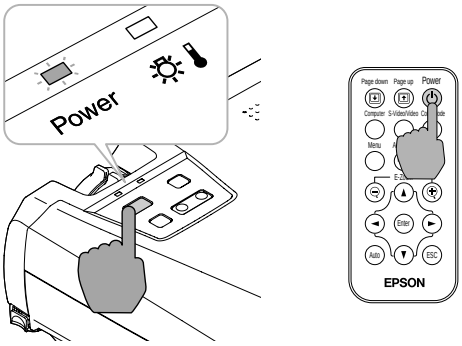


To change the color mode, press the Color Mode button on the remote control. The currently selected setting appears in the upper right corner of the screen. You can also use the projector menu system to select the Color Mode in the Video menu (see page 40).

Shutting Down the Projector

When you've finished using the projector, follow the recommended procedure to shut it down. This extends the life of the lamp and protects the projector from possible overheating.

1. If you're using a computer, shut it down first.
2. To turn off the projector, press the ⏻ Power button on the projector or remote control. You see a confirmation message. (If you don't want to turn it off, press any other button.)



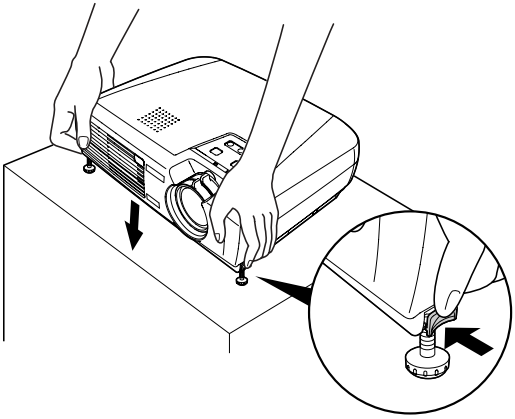
3. Press the ⏻ Power button again. The power light flashes orange for about forty-five seconds as the projector cools down. When the projector has cooled, the orange light stays on and the exhaust fan shuts off.

   If you want to turn the projector on again, wait until the orange light stops flashing. Then press the ⏻ Power button.

note

When the projector has not received any input signals for 30 minutes, it automatically turns off the projector lamp and enters "sleep mode." This conserves electricity, cools the projector, and extends the life of the lamp. If you are done using the projector, unplug the power cord. If you want to start projecting again, press the ⏻ Power *button.*

4. Retract the front feet as shown.



5. Replace the lens cap and unplug the power cord.
6. If you're using a VCR or other video source, turn it off after you turn off the projector.
7. Disconnect all equipment, and store the projector in the soft case that came with it or in a protective case.

caution

To avoid damaging the projector or lamp, never unplug the power cord when the power light is green or flashing orange.

3 Using the Remote Control

The remote control lets you access your projector's features from anywhere in the room—up to 20 feet away. You can use it to turn the projector on and off, zoom in on a portion of your image, and control various other features of the projector.

If you're using a computer and you've connected the mouse cable (as described in Chapter 1 or Appendix A), you can use the remote control as a wireless mouse.

This chapter covers the following information:

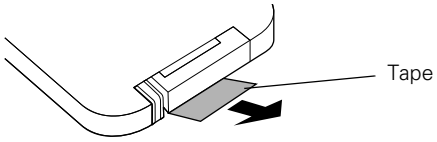
- Using the remote control
- Controlling the picture and sound
- Using the remote control as a wireless mouse

Using the Remote Control

note

Most of the projector's features can only be accessed with the remote control. To avoid losing the remote control, place it in the remote control storage compartment beneath the side of the projector.

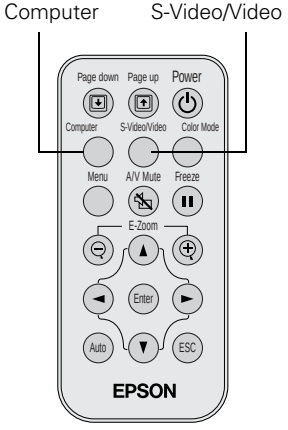
Before using the remote control, pull out the tape from the battery tray as shown below.



When using the remote control, stand within 20 feet of the projector. Point the remote control either at the front or back of the projector or at the screen (the projector's front sensor can detect signals bounced off the screen). Press the button for the function you want to use. See the following pages for instructions.

Controlling the Picture and Sound

You can use the remote control to select your source, temporarily turn off the picture and sound, freeze the action, or zoom in on the picture. Make sure you have set up your projector and connected any equipment as described in Chapter 1 or Appendix A.



Switching Between Picture Sources

If you've connected your projector to a computer and a video source, you can use the buttons on the remote control to switch between the different sources.

- Press the Computer button to select your computer source.
- Press the S-Video/Video button to select an S-Video or standard composite video source.

After you select a source, the screen goes dark for a moment before the image appears.

Turning Off the Picture and Sound

You can use the A/V Mute button on the remote control to turn off the image and sound and darken your screen. This is useful if you want to temporarily re-direct your audience's attention without the distraction of a bright screen.

- To turn off the picture and sound, press the A/V Mute button. The screen goes dark.
- To turn the image and sound back on, press the button again.

note

You can also have an image, such as a company logo, display on the screen whenever you press the A/V Mute *button. See page 43 for instructions.*

Stopping Action

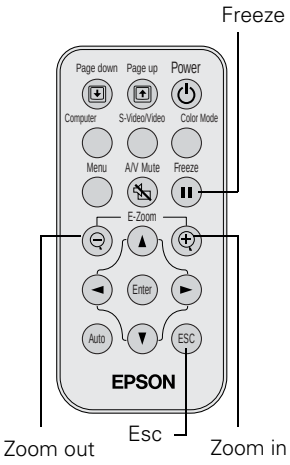
You can use the remote control to stop the action in your video or computer image.

- Press the Freeze button to stop the action and keep the current image on the screen. The sound will continue.
- Press the Freeze button again to re-start it.

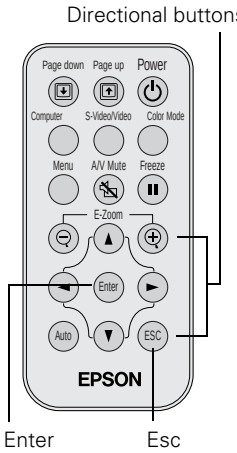
Zooming Your Image

You can zoom in on a portion of the image using the E-Zoom buttons on the remote control.

1. Press the + button to zoom in on your image.
   - Press the button repeatedly to enlarge it up to four times in 24 steps.
   - Press and hold the button to zoom in to the size you want.
2. Use the directional buttons to pan around the screen if necessary.
3. Press the – button to zoom out. You can press the button repeatedly, or press and hold it to zoom all the way out. Press the Esc button to return to the original size.



Using the Remote Control as a Wireless Mouse



When you use the remote control as a wireless mouse, you can control your computer or click through slideshow-style presentations (such as PowerPoint) from up to 20 feet away. This gives you more flexibility, since you don't need to stand near your computer to change slides.

To control your computer with the remote, make sure you have connected the mouse cable between the projector and your computer as described on page 13 (for laptops) or in Appendix A (for other systems).

- To move the mouse pointer on the screen, aim the remote at the screen and use the directional buttons to move the cursor.
- To click (or left-click), press the Enter button.
- To right-click, press the Esc button.
- To double-click, press down twice on the Enter button.
- To click and drag, press down on the Enter button and use the directional buttons to move where you want to drag.
- To advance slides in a PowerPoint presentation in Slide Show mode, press the Page up or Enter button on the remote control. Press the Page down or Esc button to go back a slide.

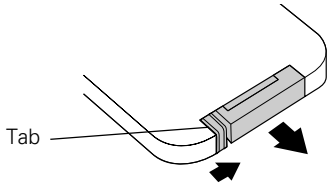
note

The Page up and Page down buttons work only when the USB mouse cable is connected.

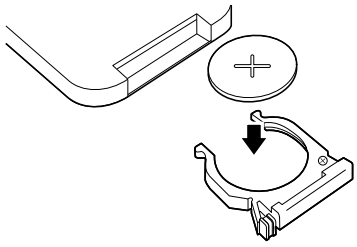
Replacing the Battery

Follow these steps to replace the battery:

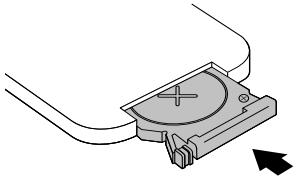
1. Press the tab towards the center of the remote and slide the battery tray out of the remote control.



2. Remove the old battery and insert a CR2025 watch battery as shown.



3. Slide the battery tray back into the remote until it clicks into place.



caution

When replacing batteries, take the following precautions:

- *Replace the battery as soon as it runs out. If the battery leaks, wipe away battery fluid with a soft cloth. If fluid gets on your hands, wash them immediately.*
- *Do not expose batteries to heat or flame.*
- *Dispose of used batteries according to local regulations.*
- *Remove the battery if you won't be using the projector for a long period of time.*

4 Fine-tuning the Projector

You can use the projector's remote control to access on-screen menus to adjust the image, sound, and other features. You can also create your own startup screen, and find out how long your lamp has been in use. This chapter covers the following information:

- Using the menu system
- Adjusting the image
- Adjusting the sound
- Creating your own startup screen
- Customizing projector features
- Viewing lamp usage and other information
- Restoring the default settings

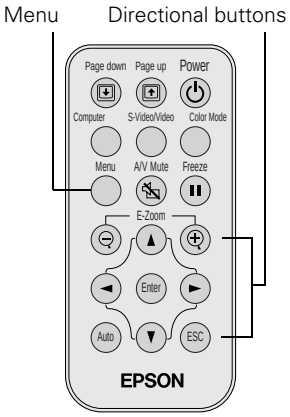
Using the Projector's Menu System

The seven projector menus let you adjust and customize the projector features from the remote control:

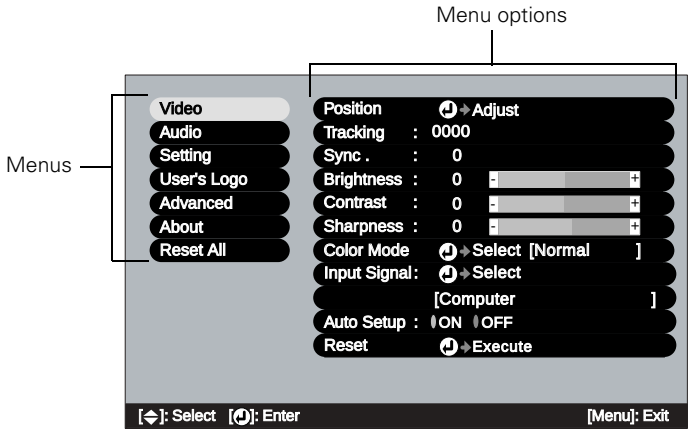
- The Video menu controls the look and quality of the projected image. It lets you adjust the image position and fine-tune settings such as Brightness, Sharpness, and Contrast.
- The Audio menu controls the volume level and audio input setting.
- The Setting menu allows you to set or adjust features such as Auto Keystone correction, blank screen color, A/V Mute display, and the power management system.
- The User's Logo menu lets you capture and store a custom image or logo which you can then use as a startup screen or with the A/V Mute option.
- The Advanced menu lets you specify additional projector settings, including menu language, startup screen, color setting, and rear or ceiling projection.
- The About menu provides information about lamp status and computer or video settings.
- The Reset All menu lets you restore the factory defaults for all the projector settings.

Changing Menu Settings

Use the buttons on the remote control to access the menus and change settings. Follow these steps:



1. To display the menu screen, press the Menu button on the remote control. You see the menu screen:



   The seven menus are listed on the left, and the options available for the highlighted menu are shown on the right.

2. Press up or down on the directional buttons to scroll through the menu list.
3. When the menu you want is highlighted, press the Enter button to select it. The highlight moves to the first option for that menu.
4. Use the directional buttons to scroll through the list of options. (If a computer or video source isn't connected, certain options may be unavailable.)
5. Use the directional buttons and Enter button to change the setting for the selected option. Enabled settings are highlighted.
6. Press the Esc button to return to the main menu. Your changes are saved automatically.
7. Press Esc again (or the Menu button) to exit the menu system.

note

If you want to go back to the default settings on any menu, select Reset*, press* Enter*, select* Yes*, and then press* Enter.

Adjusting the Image

The Video menu lets you make adjustments to the projected image. The options available in the menu depend on which image source is selected: computer or video.

Repositioning the Image

note
If you have repositioned the image, you can use the Auto *button on the remote control to restore the default settings.*

Follow these steps to fine-tune the image position:

1. Press the Menu button. You see the main menu.
2. Press Enter to select the Video menu.
3. Press Enter to select the Position option. You see the Position adjustment screen.
4. Use the directional buttons to move the image left, right, up, or down.
5. When the image is positioned the way you want, press Esc.

Adjusting Image Appearance

Follow these steps to adjust the appearance of your image:

1. Press the Menu button. You see the main menu.
2. Press Enter to select the Video menu.
3. Use the directional buttons to set the following options:
   - Tracking (computer images only)
     Removes unwanted vertical lines from a computer image by matching the projector's internal clock to various computer signals.
   - Sync (computer images only)
     Corrects fuzziness or screen flicker by synchronizing the projector with the tracking signal sent from the computer.
   - Auto Setup (computer images only)
     Leave this setting ON to automatically optimize the computer image. Turn it off if you want to save adjustments you have made to the video settings.

- Color (video only)
  Adjusts the depth or intensity of the image.
- Tint (video only)
  Adjusts the balance of green to magenta in the image.
- Video Signal (video only)
  Leave this setting at Auto unless you are using a 60-Hz PAL system (select PAL60).
- Aspect Ratio (video only)
  Set to 4:3 for letterbox video content and to 16:9 for widescreen video content.
- Brightness
  Lightens or darkens the overall image.
- Contrast
  Adjusts the difference between light and dark areas.
- Sharpness
  Sharpens or softens the image.
- Color Mode
  Corrects the vividness of image color. You can select from the following six settings, and save a different one for each computer and/or video source:

  sRGB: For standard sRGB computer displays (the default when projecting from a computer with analog video)

  Normal: For presentations in bright rooms

  Meeting: For projecting without color enhancement

  Presentation: For presentations in dark rooms

  Theatre: For optimizing movie images with natural color (the default for video or S-Video display)

  Game: For optimizing video games in bright rooms

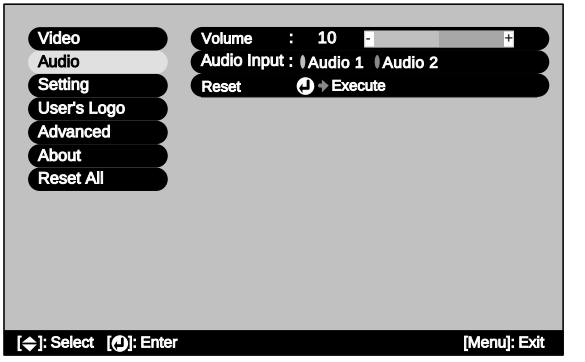
- Input Signal
  Leave this setting on Computer when a computer is connected to the Computer/Component Video port. When a component video source is connected, choose YCbCr or YPbPr, depending on the type of signals produced by your source. (You can tell which setting is correct by the quality of the projected image.)

4. When the image is set correctly, press Esc or Menu. Your settings are automatically saved.

Adjusting the Sound

You can use the Audio menu to adjust the sound volume and switch the audio input port.

1. Press the Menu button. You see the main menu.
2. Use the directional buttons to highlight Audio. You see the following:



3. Press Enter to select the Audio menu.
4. Use the directional buttons to set the Volume.
5. If you're using a different audio input port than the default port for your source, select a different Audio Input setting (either Audio 1 or Audio 2).
6. When you're finished adjusting the sound, press Esc or Menu.

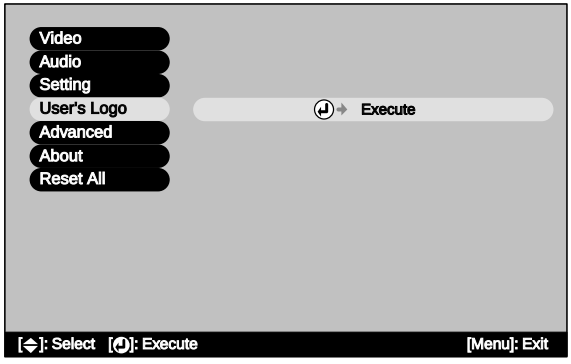
Creating Your Own Startup Screen

You can transfer any image on your computer to the projector, and then use it as the screen displayed when the projector is not receiving a signal. You can also set it to be displayed when you press the A/V Mute button, or as a startup screen. The image can be a company logo, slogan, photograph, or any other image you want to use.

Capturing the Image

Start by displaying the image you want to use on the projector. You can use an image from either a computer or video source such as a VCR or digital camera. Then follow these steps to capture the image and transfer it to the projector:

1. Press the Menu button on the remote control. You see the main menu.
2. Use the directional buttons to highlight the User's Logo menu.



3. Press Enter to select it. You see a message asking if you want to use the present image as a user's logo.
4. Select Yes and press Enter. A selection box displays over the image.
5. Use the directional buttons to select the area of the image you want to use. Once you have selected the area, press Enter.

6. When you see the message "Select this image?" select Yes and press Enter. If you want to change the area selected, select No, press Enter and repeat steps 4 through 6.
7. Use the directional buttons on the remote control to select a zoom rate (display size), and then press Enter.
8. When you see the message "Save image as user's logo?," select Yes and press Enter. Saving the logo may take a few minutes. Do not use the projector or other sources (computer, video, etc.) while the logo is being saved.
9. When you see the message "Completed," press Esc or Menu.

Selecting When the Image Displays

note
You can also set up your image as a startup screen. Use the Advanced menu to enable the startup screen; see page 46.

After your image is saved, you can set it up as the no-signal message and/or the screen that's displayed when you press the A/V Mute button.

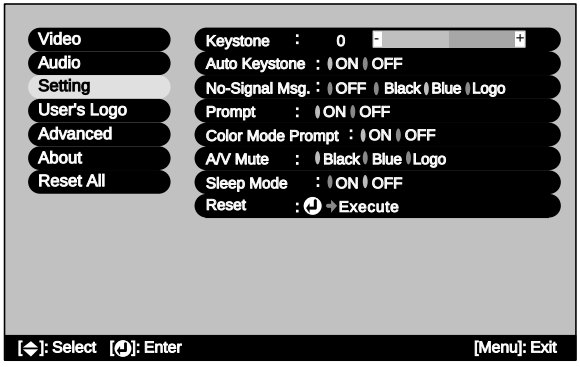
1. Press the Menu button to display the main menu (if not already displayed).
2. Use the directional buttons to highlight Setting.
3. Press Enter to select the Setting menu.
4. Use the directional buttons to highlight No-Signal Msg.
5. Use the directional buttons to select Logo; then press the Enter button. This sets your image as the screen displayed when the projector is not receiving a signal.
6. If you want to set up your image as the A/V Mute display, use the directional buttons to move down to A/V Mute.
7. Use the directional buttons to select Logo; then press the Enter button. This sets your image as the screen displayed when you press the A/V Mute button.
8. When you're finished, press Esc or Menu.

To test your setting, press the A/V Mute button to display your image. Press it again to turn off the image.

Customizing Projector Features

You can use the Setting menu to disable the projector's sleep mode, adjust the image shape, and customize several other features.

1. Press the Menu button.
2. Use the directional buttons to highlight Setting. You see the features and their settings on the right side:



3. Press Enter to select the Setting menu.
4. Use the directional buttons and Enter button to set the following options:

   - Keystone
     Adjusts a distorted image from a trapezoid shape to rectangular.
   - Auto Keystone
     Automatically adjusts a distorted image from a trapezoid shape to rectangular when the projector's feet are extended or retracted. (Not available when you're projecting from the ceiling or using rear projection.)
   - No-Signal Msg.
     Selects the screen color and message to display when the projector is not receiving a signal. The logo setting displays an image that you have transferred to the projector. See page 43 for instructions on transferring an image to use as the no-signal message.

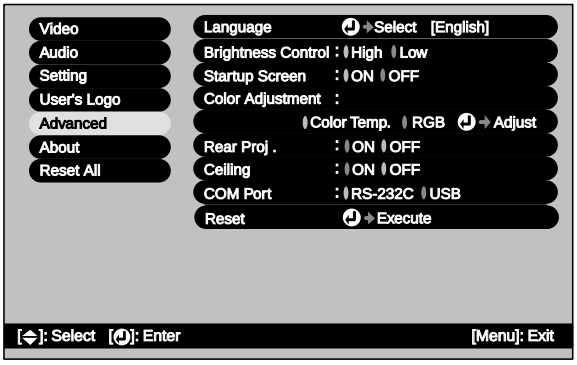
- Prompt
  Turns off the identifying text that appears briefly when you switch from computer input to a video source.
- Color Mode Prompt
  Turns off the identifying text that appears briefly when you switch color modes.
- A/V Mute
  Selects the screen color or image to display when you press the A/V Mute button. The logo setting displays an image that you have transferred to the projector. See page 43 for instructions on transferring an image to use for the A/V Mute display.
- Sleep Mode
  Enables or disables the power management system, which turns the lamp off when the projector has not received any input signals for 30 minutes.

5. When you're finished, press Esc or Menu.

Setting Advanced Features

You can use the Advanced menu to configure the projector for rear projection or ceiling mounting, and adjust several other features.

1. Press the Menu button.
2. Use the directional buttons to highlight Advanced. You see the features and their settings on the right side:



3. Press Enter to select the Advanced menu.
4. Use the directional buttons and Enter button to set the following options:

   - Language
     Select from nine languages to be used for the projector menus.
   - Brightness Control
     Select a Low lamp brightness setting when you need to reduce fan noise for your presentation. When you select Low, the projector starts up using High brightness for two minutes, then switches to Low.
   - Startup Screen
     Turn on to display the image or logo you have captured whenever the projector starts. See page 43 for more information.
   - Color Adjustment

     Color Temp: Adjusts the whiteness of the screen.

     RGB: Adjusts the individual RGB values.
   - Rear Proj.
     Turn on to project from behind a transparent screen.
   - Ceiling
     Turn on when the projector is mounted upside-down from the ceiling.
   - COM Port
     Turn on USB when you're controlling the projector from a computer with the EMP Link 21L software. This software can be downloaded from the EPSON website at support.epson.com. (You must turn the projector off and then on again to use the new setting.)

5. When you're finished, press Esc or Menu.

note
The USB and remote control mouse features do not work when COM Port is set to USB.

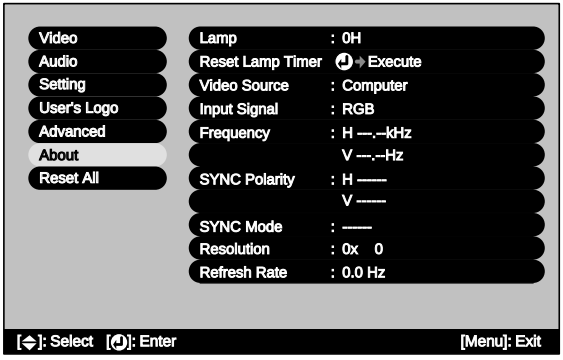
Viewing Lamp Usage and Other Information

Use the About menu to view information about the display settings of your computer and the number of hours the lamp has been used.

note
If you access the About menu when the projector display is set to video, you only see the lamp life, video source, and video signal settings.

1. Press the Menu button. You see the main menu.
2. Use the Enter button to select About.

   You see the lamp usage hours and computer display settings on the right:



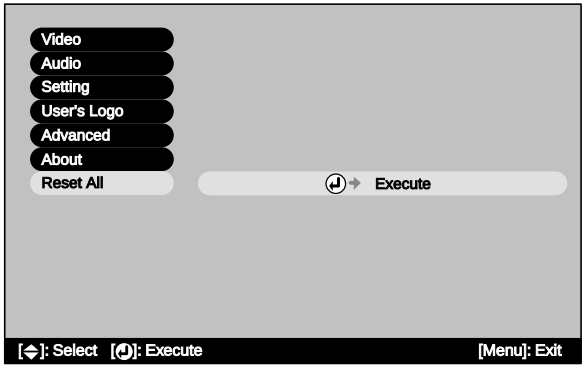
note
The lamp usage timer doesn't register until you've used the lamp for at least 10 hours.

   The life span of the lamp is about 1500 hours. If the number shown is close to 1500, make sure you have a spare lamp handy.

3. When you're finished, press Esc or Menu.

Restoring the Default Settings

The Reset All option lets you return all the projector settings to their default values.



Select Reset All and press the Enter button on the remote control to display the confirmation screen. Select Yes to reset all the default settings or No to cancel.

note

The Input Signal, Video Signal, User's Logo, Lamp, and Language settings do not return to their defaults when you select Reset All.

5 Maintaining and Transporting the Projector

Your projector needs little maintenance. All you need to do on a regular basis is keep the lens clean. Any dirt or smears on the lens may show up on your projected image.

You also need to periodically clean the air filter on the bottom of the projector. A clogged air filter can block ventilation needed to cool the projector and cause overheating.

The only parts you should replace are the lamp and air filter. If any other part needs replacing, contact your dealer or a qualified servicer.

This chapter covers the following:

- Cleaning the lens
- Cleaning the projector case
- Cleaning and replacing the air filter
- Replacing the lamp
- Resetting the lamp timer
- Transporting the projector

warning

Before you clean any part of the projector, turn it off and unplug the power cord. Never open any cover on the projector, except the lamp and filter covers. Dangerous electrical voltages in the projector can injure you severely. Do not try to service this product yourself, except as specifically explained in this User's Guide. *Refer all other servicing to qualified service personnel.*

Cleaning the Lens

Clean the lens whenever you notice dirt or dust on the surface.

- Use a canister of compressed air to remove dust.
- To remove dirt or smears on the lens, use lens-cleaning paper. If necessary, moisten a soft cloth with lens cleaner and gently wipe the lens surface.

caution

Do not use glass cleaner to clean the lens.

Cleaning the Projector Case

Before you clean the case, first turn off the projector and unplug the power cord.

- To remove dirt or dust, wipe the case with a soft, dry, lint-free cloth.
- To remove stubborn dirt or stains, moisten a soft cloth with water and a mild detergent. Then wipe the case.
- Do not use wax, alcohol, benzene, paint thinner, or other chemical detergents. These can damage the case.

Cleaning and Replacing the Air Filter

Clean the air filter on the bottom of the projector after every 100 hours of use. If it is not cleaned periodically, it can become clogged with dust, preventing proper ventilation. This can cause overheating and damage the projector. To clean the air filter, follow these steps:

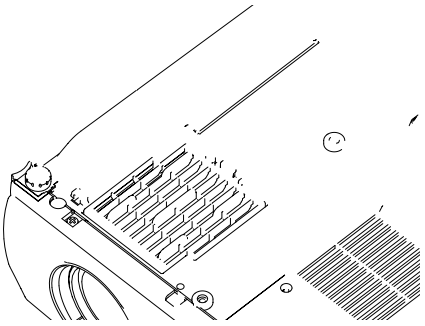
1. Turn off the projector, allow it to cool down, and unplug the power cord.

2. Turn the projector upside-down, as shown below.

3. To clean the filter, EPSON recommends using a small vacuum cleaner designed for computers and other office equipment. If you don't have one, gently clean the filter using a very soft brush (such as an artist's camel-hair brush).

   If the dirt is difficult to remove or if the filter is torn, replace it. Contact your dealer or call EPSON at (800) 873-7766 to obtain a new one. In Canada, please call (800) 463-7766 to locate a dealer.

4. If you need to replace the filter, lift the tab on the filter cover and pull it upward to remove it.



5. Remove the filter.
6. Install the new filter as shown below.

7. Replace the filter cover by inserting the tabs and then pressing down the other end until it clicks into place.

Replacing the Lamp

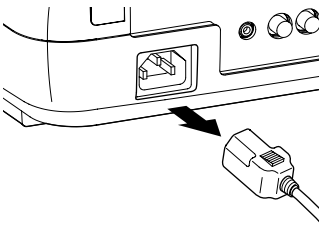
The projection lamp typically lasts for about 1500 hours of use. It is time to replace the lamp when:

- The projected image gets darker or starts to deteriorate.
- The warning light is red, flashing red, or flashing orange.
- The message LAMP REPLACE appears on the screen when the lamp comes on (after about 1400 hours of use). To maintain projector brightness and image quality, replace the lamp as soon as possible.

Contact your dealer or call EPSON at (800) 873-7766 in the United States for a replacement lamp. Request part number V13H010L21. In Canada, please call (800) 463-7766 to locate a dealer.

Follow these steps to replace the lamp:

1. Turn off the projector, wait for the cool down period to end, then unplug the power cord.



2. Allow the projector to cool down for at least one hour (if it has been on).
3. Turn the projector upside-down to access the lamp compartment.

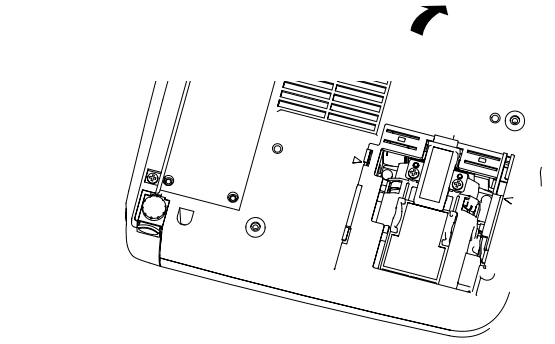
note

You can check to see how many hours the lamp has been used. See page 48.

warning

Let the lamp cool before replacing it. If the lamp breaks, handle the shards carefully to avoid injury.

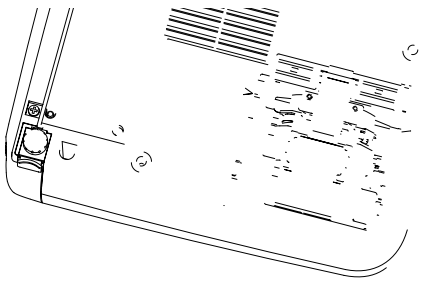
4. Use the screwdriver included with the replacement lamp to slide the edge of the lamp cover towards the side of the projector. Then lift off the cover.



5. Use the screwdriver to loosen the two screws holding the lamp in place. The screws are deep inside the projector on the sides of the lamp. (You can't remove the screws.)

6. Hold the lamp by the top, as shown, and pull the lamp straight out.

7. Gently insert the new lamp as shown below.



caution

Do not touch the glass portion of the lamp assembly. Touching the glass could result in premature lamp failure.

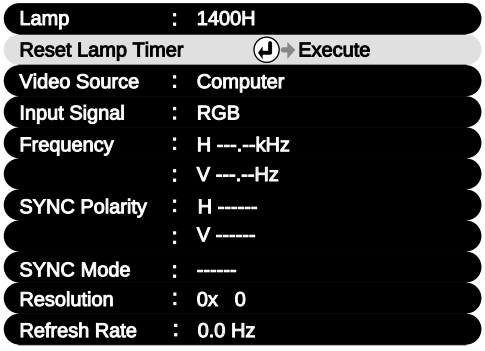
8. Once the lamp is fully inserted, tighten its screws.
9. Position the lamp cover so the arrows on the lamp cover align with the arrows on the projector. Then slide in the cover until it clicks into place.

10. Now reset the lamp timer as described on page 58.

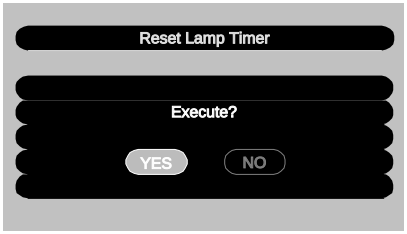
Resetting the Lamp Timer

You must reset the lamp timer after replacing the lamp to clear the LAMP REPLACE warning message. Follow the directions below to reset the lamp timer:

1. Turn on the projector.
2. Press the Menu button on the remote control. You see the main menu.
3. Use the directional buttons to highlight About, then press the Enter button. You see the following:



4. Press Enter to select the Reset Lamp Timer option. You see the following:



5. Use the directional buttons to select YES and press Enter.
6. Press Esc to return to the main menu.
7. Press Esc again (or the Menu button) to exit the menu system.

Transporting the Projector

The projector contains many glass and precision parts. If you need to transport it, please follow these packing guidelines to prevent damage to the projector:

- When shipping the projector for repairs, use the original packaging material if possible. If you do not have the original packaging, use equivalent materials, placing plenty of cushioning around the projector.
- When transporting the projector as freight or checked luggage, first put it in the supplied carrying case, then pack it in a firm box, using cushioning around the case.
- When you are hand-carrying the projector, be sure to use the supplied carrying case.

note

EPSON shall not be liable for any damages incurred during transportation.

6 Solving Problems

This chapter helps you solve problems with your projector, and tells you how to contact technical support for problems you can't solve yourself. This chapter explains the following:

- Using the projector's on-screen help system
- What to do when the projector's status lights flash
- Solving problems with the image or sound
- Solving problems with the remote control
- Contacting technical support

Using On-Screen Help

If the image doesn't look right or your audio isn't working, you can get help by pressing the ? Help button on top of the projector. The following choices are available:

- Help for the image
- Help for the sound
- Language selection

Follow these steps to get help:

1. Press the ? Help button on the projector. You see the help menu.
2. Press the left side of the Select (Keystone) button on the projector to highlight one of the options. Then press the Enter (Source) button on the projector to select it.
3. Press the left side of the Select (Keystone) button on the projector to highlight the problem you want to solve. Then press the Enter (Source) button to view the solution(s).
4. Highlight a solution (if this choice is available). Then press the Enter (Source) button to select the solution.

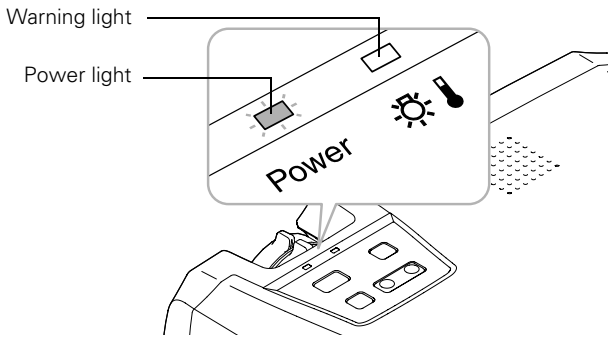
   Highlight Return and press the Enter (Source) button if you need to back up.

   If the solution is to adjust one of the settings, press the left side of the Select (Keystone) button on the projector to adjust it.
5. To exit the Help system, press the ? Help button.

If none of the suggestions solves your problem, see additional solutions to problems in the following sections.

What To Do When the Lights Flash

The lights on top of the projector indicate the projector's status and let you know when a problem occurs.



If the projector is not working correctly, first turn it off and unplug it. Then plug the power cord back in and turn on the projector. If this does not solve the problem, check the status lights on top of the projector and try the solutions recommended below.

Status lights

Power light	**Warning light**	**Status**	**Description**
—	Flashing red	Internal error	There is an internal error in the projector. Turn the projector off and unplug it. Contact EPSON for help.
—	Flashing red (quickly)	Lamp failure	The lamp is burned out or not installed correctly, or the lamp cover is open. Close the cover or replace or reseat the lamp, if necessary, as described on page 55.
—	Red	Overheating	The projector has overheated and turned itself off. Let it cool for a few minutes, then turn it back on. Make sure there is plenty of space around and under the projector for ventilation. Also clean the air filter (see page 53). If it continues to overheat, you may need to replace the air filter.

Status lights

Power light	Warning light	Status	Description
—	Flashing orange (quickly)	High temperature warning	The projector is too hot. Make sure the temperature surrounding the projector does not exceed 95 °F and there is plenty of space around and under the projector for ventilation. Clean the air filter, if necessary. See page 53 for instructions.
Orange	Off	Sleep mode	The projector is in sleep mode. You can unplug it or press the ⏻ Power button to turn it on.
Flashing green	Off	Warming up	The projector is warming up. Wait for the image to appear.
Green	Off	Operating	The projector is operating normally.
Flashing orange	Off	Cooling down	The projector is cooling down. Wait for the light to stay lit orange without flashing before unplugging it.

Solving Problems with the Image or Sound

No image appears on the screen.

- Check that the power light is green, not flashing, and the lens cap is off.
- The projector may be in sleep mode. If the power light is orange, press the ⏻ Power button to turn the projector on.
- If the power was switched off and then on again, the projector may still be cooling down. Wait until the power light stops flashing and remains orange; then press the ⏻ Power button again.
- Make sure the Brightness setting on the Video menu is correct. See page 41 for more information. Try selecting the Reset All setting to return all setup menus to their default values.
- Press the A/V Mute button to make sure the picture has not been turned off temporarily.
- The attached computer may be in sleep mode or displaying a black screen saver. Try pressing a key on the computer.

You see a blue screen with the message No Signal **displayed.**

- Make sure the cables are connected correctly, as described in Chapter 1 or Appendix A.
- Make sure the power to your computer or video source is turned on.
- Try restarting your computer.
- If you've connected a computer and one or more video sources, you may need to press the Source button (on the projector) or the Computer or S-Video/Video button (on the remote control) to select the correct source. Allow a few seconds for the projector to sync up after pressing the button.

If you're using a PC laptop:

- Hold down the Fn key and press the function key that lets you display on an external monitor. It may have an icon such as , or it may be labelled CRT/LCD. Allow a few seconds for the projector to sync up after pressing it. Check your laptop's manual or online help for details.

  On most systems, the or CRT/LCD key lets you toggle between the LCD screen and the projector, or display on both at the same time.

- Depending on your computer's video card, you might need to use the Display utility in the Control Panel to make sure that both the LCD screen and external monitor port are enabled. See your computer's documentation or online help for details.

If you're using a PowerBook or iBook with Macintosh OS 9.x:

1. From the Apple menu, select Control Panels, then click Monitors or Monitors and Sound.
2. Click the Arrange icon.
3. Drag one monitor icon on top of the other. This lets you display on the projector screen as well as the LCD screen.
4. If the Arrange icon isn't available, click the Monitor icon.
5. Select one of the listed SimulScan resolutions. (Allow a few seconds for the projector to sync up after making the selection.)

If you're using a PowerBook or iBook with Macintosh OS X:

1. From the Apple menu, select System Preferences, then click Display.
2. Select VGA Display or Color LCD, click Arrange or Arrangement, then put a check mark in Mirror Displays.

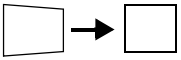
The message Not Supported is displayed.

Make sure your computer's resolution doesn't exceed UXGA and the frequency is supported by the projector (see page 95). If necessary, change your computer's resolution setting as described below.

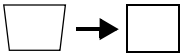
Only part of the computer image is displayed.

- Make sure the image Position setting is correct on the Video menu. See page 40 for more information.
- Make sure your computer's resolution setting is correct. Ideally, it should be 1024 × 768 (for the PowerLite 73c) or 800 × 600 (for the PowerLite 53c) to match the projector's native resolution. If this option isn't available, select one of the other compatible video formats listed on page 95.
  - **Windows**:
    Right-click the desktop, select Properties, click the Settings tab, and select a different resolution.
  - **Macintosh OS 9.x**:
    On the Apple menu, choose Control Panels, then click Monitors or Monitors and Sound. Select a different resolution.
  - **Macintosh OS X:**
    On the Apple menu, choose System Preferences, then click Display. Select a different resolution.
- You also may need to modify existing presentation files if you created them for a different resolution. See your software documentation for specific information.
- If you used the E-Zoom feature, press Esc on the remote control to cancel zooming and return to full screen size.
- If you changed the Aspect Ratio setting for a different source, you may need to change it back to 4:3. See page 40 for instructions.

The image isn't rectangular, but trapezoid-shaped.



- Make sure the projector isn't placed off to one side of the screen, at an angle, or the image won't be rectangular. Place the projector directly in front of the center of the screen, facing the screen squarely.



- If you've tilted the projector upward by extending the legs, the image will be broader at the top. Turn on Auto Keystone correction as described on page 45 or hold down the or side of the Keystone button on top of the projector until the image is rectangular.

The image contains static or noise.

- If you're using a computer cable longer than 6 feet, or an extension cable, the image quality may be reduced.
- Keep your computer and video cables separated from the power cord as much as possible to prevent interference.
- The video signal may be split between the computer and the projector. If you notice a decline in the projected image quality when the image is displayed simultaneously on your laptop computer and the projector, turn off the laptop's LCD display.

The image is blurry.

- Adjust the focus using the focus ring.
- Make sure the lens cover is off.
- There may be dirt or smears on the lens. Clean the lens as described on page 52.
- Make sure the lens is not fogged by condensation. You may need to wait before using the projector after moving it from a cold environment.
- Make sure the projection distance is within the range described on page 10.
- Adjust the Sharpness setting on the Video menu (see page 40).

The colors of the image are not right.

note
Because of the different technologies used, your projected image may not exactly match the colors on your laptop or computer monitor.

- If you're displaying a computer image, use the Color Mode option in the projector's Video menu to adjust the color. If you're displaying video, adjust the Color and Tint settings on the Video menu. See page 40 for instructions.
- Adjust the Brightness and Contrast settings on the Video menu.
- Try adjusting the Color Temp setting on the Advanced menu.
- If the images appear too green or too purple, check that the Input Signal setting is correct on the Video menu.
- Check your computer display settings to correct the color balance.
- The lamp may be nearing time for replacement. Check the lamp hours as described on page 48 and replace it, if necessary, as described on page 55.

There is no sound.

- Try turning up the volume (see page 42).
- If you're using a VCR or other video source, make sure its volume is not turned all the way down or muted. Also, make sure the cables are connected correctly, as described in Chapter 1.
- If your presentation includes computer audio, make sure the volume control on your computer is not turned all the way down or muted. Make sure the audio cable is securely connected to both the projector and your computer's headphone jack or audio out jack. See page 14 (for laptops) or Appendix A (for other systems).
- Make sure the Windows volume controls on your computer are not turned all the way down or set to Mute. Check this by clicking the volume control in your Windows System Tray (lower right corner of the screen).
- Make sure the A/V Mute button is not enabled.
- The wrong source may be selected. Press the Source button on the projector—or the Computer or S-Video/Video button on the remote control—to select the correct source.

Solving Problems with the Remote Control

The projector doesn't respond to remote control commands.

- Make sure the tape has been removed from the battery tray as described on page 32.
- Make sure you are within 20 feet of the projector, and within range of the projector's front or back sensor (approximately 30° to the left or right and 15° above or below).
- The remote control battery may not be installed correctly or may be low on power. Change the battery as described on page 35.
- Dim the room lights and turn off any fluorescents. Make sure the projector is not in direct sunlight. Strong lighting, especially fluorescent lights, may affect the projector's infrared receivers.
- Turn off any nearby equipment that emits infrared energy, such as a radiant room heater.

You can't control the mouse pointer with the remote control.

- Make sure the mouse cable is securely connected to both your computer's mouse port or USB port and the projector's USB port. For details, see page 13 (for laptops) or Appendix A (for other systems).
- Make sure RS232C is selected as the COM Port setting in the Advanced menu (see page 46). If you select USB, you can't use the USB port to control a mouse.
- To use the USB mouse connection on a PC, your system must have a "clean" installation of Windows 98, Windows Me, Windows XP, or Windows 2000. The connection may not work correctly if your system was upgraded from Windows 95.

Where To Get Help

EPSON provides technical assistance through electronic support services 24 hours a day, as listed in the following table.

Service	Access
World Wide Web	From the Internet, you can reach EPSON's product support page at **http://support.epson.com.** After selecting your product, you can access troubleshooting information, download product documentation, and receive technical advice through e-mail.
Presenters Online	Access tips, templates, and training for developing successful presentations at **http://www.presentersonline.com**

Telephone Support Services

To use the EPSON PrivateLine Support service, call (800) 637-7661 and enter the PIN on the EPSON PrivateLine Support card included in your owner's kit. This is the fastest way of speaking to a live representative, and it's free. This service is available 6 AM to 6 PM, Pacific Time, Monday through Friday, for the duration of your warranty period.

You may also speak with a projector support specialist by dialing one of these numbers:

- U.S.: (562) 276-4394, 6 AM to 6 PM, Pacific Time, Monday through Friday
- Canada: (905) 709-3839, 6 AM to 6 PM, Pacific Time, Monday through Friday

Toll or long distance charges may apply.

Before you call, please have the following information ready:

- Product name (EPSON PowerLite 53c or PowerLite 73c)
- Product serial number (located on the bottom of the projector)
- Computer or video configuration
- Description of the problem

You can purchase screens, carrying cases, or other accessories from EPSON at (800) 873-7766 or by visiting the EPSON Store at www.epsonstore.com (U.S. sales only). In Canada, please call (800) 463-7766 for dealer referral.

A Appendix A: Connecting to Additional Equipment

This appendix explains how to connect the projector to a desktop computer or Macintosh, or a high-end workstation.

The following information is covered:

- Installing the projector
- Connecting to a PC desktop computer
- Connecting to a desktop Macintosh
- Connecting to a high-end workstation

Installing the Projector

The projector can be installed for three different viewing setups: front projection, ceiling mounting, or rear projection onto a semi-transparent screen.

To project from overhead, you'll need to select Ceiling in the projector's Advanced menu. To project from the rear, select Rear Proj. See page 46 for more information.

If you're ceiling-mounting the projector and you place it above screen level, you'll have to tilt it down to position the image on-screen. This causes the image to lose its rectangular shape. You can then correct the distortion by using the Keystone function in the projector's menu system (see page 45). (You can't use the Auto Keystone function when you're projecting in ceiling or rear projection mode.)

If you place the projector's lens so it's level with the top of the screen, the image will be rectangular and you won't have to adjust it. If you place the lens lower than the top of the screen, you'll have to tilt the projector upward if you want to fill the whole screen with the image.

Connecting to a PC Desktop Computer

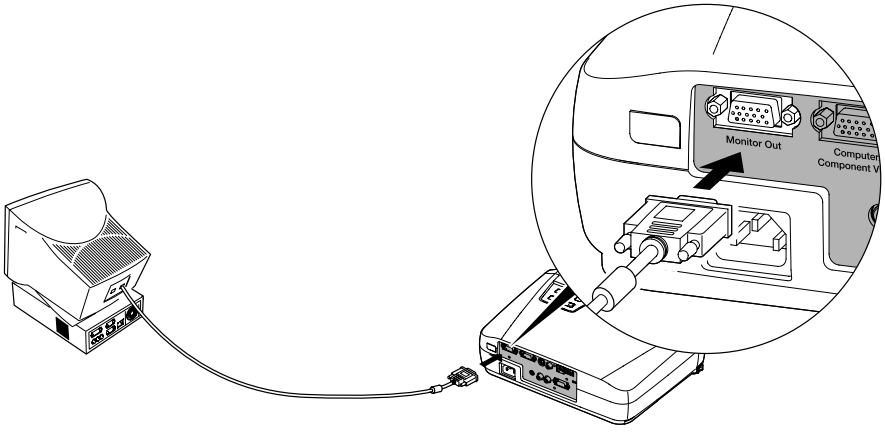
You can connect the projector to any IBM®-compatible PC. This section includes instructions for the following:

- Connecting the computer cable
- Connecting a monitor to view your display on the desktop computer screen
- Connecting the mouse cable (if you want to use the remote control as a mouse)
- Connecting an optional audio cable (if you'll be projecting with audio)

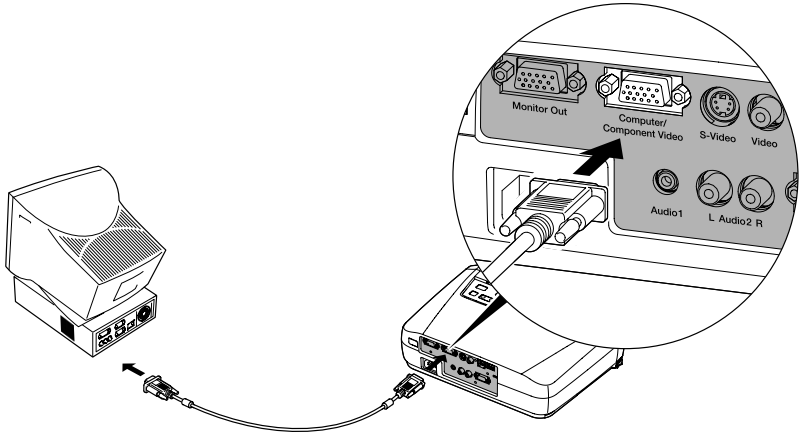
Follow the steps in each section for the cables you need to connect. Before beginning, turn off the projector and computer if they are on.

Connecting the Computer Cable

1. Disconnect the monitor cable from the video port on the back of the computer.
2. If you want to view the display on your computer monitor as well as the projector screen, connect the monitor cable to the projector's Monitor Out port, as shown.



3. Connect one end of the computer cable to the projector's Computer/Component Video port.

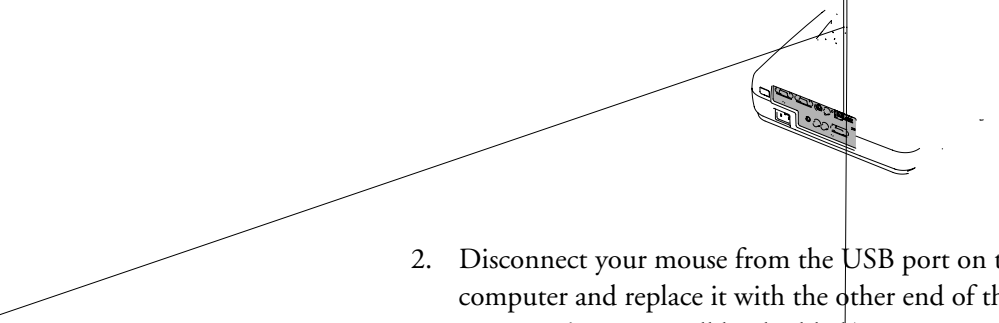


4. Connect the other end of the computer cable to the computer's video port.
5. Tighten the screws on the connectors.

Connecting the Mouse Cable

To use the remote control as a mouse, follow the steps below.

1. Connect the square end of the USB mouse cable to the projector's USB port, as shown.

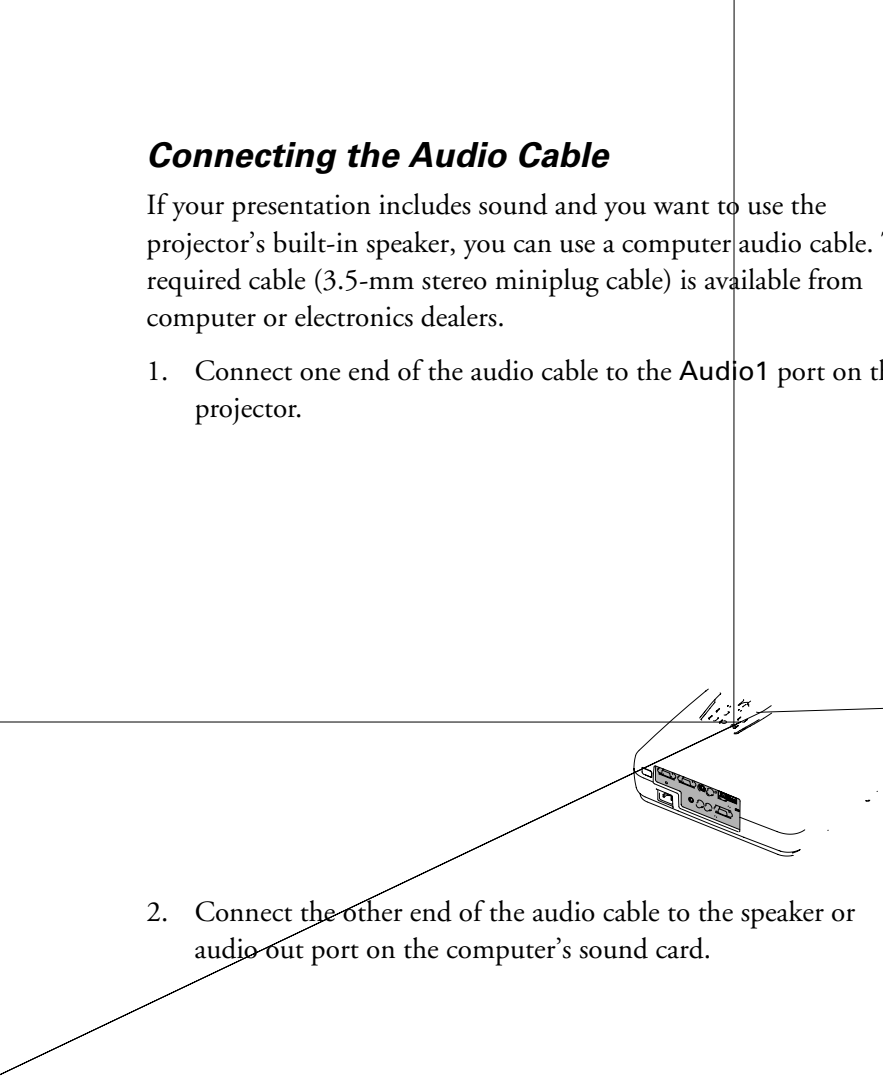


2. Disconnect your mouse from the USB port on the back of your computer and replace it with the other end of the cable. (Your computer's mouse will be disabled.)
3. If necessary, configure your computer to work with a USB mouse.
4. You can connect an external mouse to the USB Type A port or use the port as a USB hub to connect an external USB device, if you want.

Connecting the Audio Cable

If your presentation includes sound and you want to use the projector's built-in speaker, you can use a computer audio cable. The required cable (3.5-mm stereo miniplug cable) is available from computer or electronics dealers.

1. Connect one end of the audio cable to the Audio1 port on the projector.



2. Connect the other end of the audio cable to the speaker or audio out port on the computer's sound card.

Connecting to a Desktop Macintosh

You can connect the projector to a desktop Macintosh. This section includes instructions for the following:

- Connecting the computer video cable
- Connecting a monitor to view your display on the desktop computer screen
- Connecting the mouse cable (if you want to use your remote control as a mouse)
- Connecting an optional audio cable (if you'll be projecting with audio)

Follow the steps in each section for the cables you need to connect. Before beginning, turn off the projector and computer if they are on.

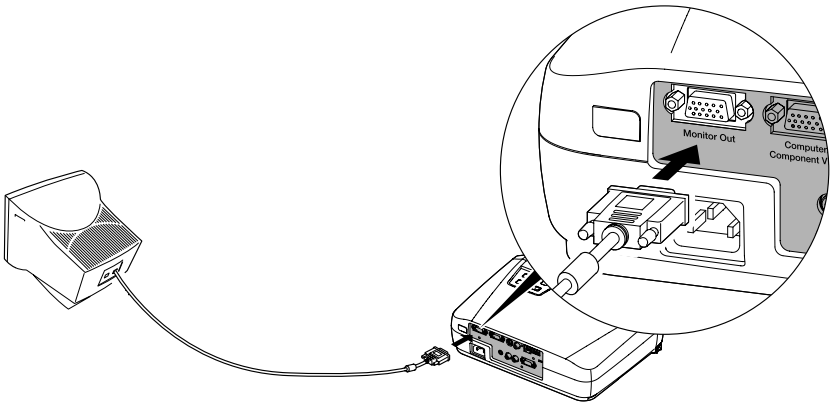
note

Macintosh configurations vary. See your computer manual for the location of the ports needed to connect your projector. Older models may require a Macintosh adapter, which you may purchase from EPSON; see page 7.

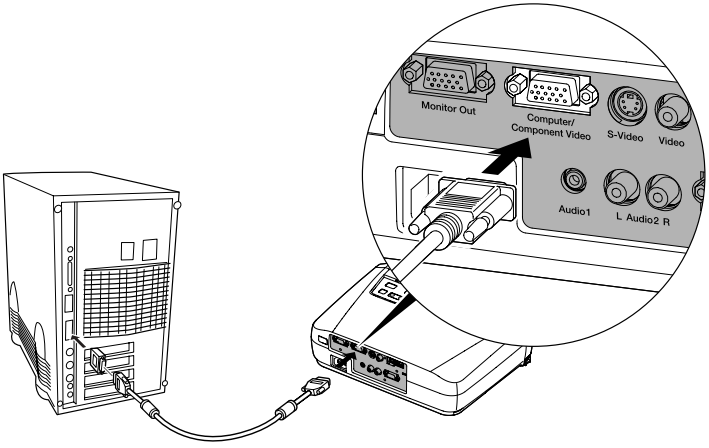
Connecting the Computer Cable

Follow these steps to connect the computer cable. You may not need to use the adapter as shown.

1. Disconnect the monitor cable from the video port on the back of the Macintosh.
2. If you want to view the display on your computer monitor as well as the projector screen, connect the monitor cable to the projector's Monitor Out port, as shown.

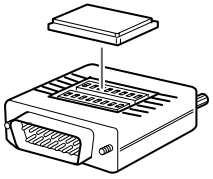


3. Connect one end of the computer cable to the projector's Computer/Component Video port, as shown.

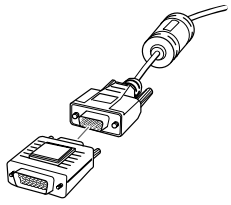


4. Connect the other end of the computer cable to the video port on the Macintosh.

5. If it doesn't fit, you may have to use a Macintosh desktop adapter, which you can buy from EPSON (see page 7).



To use the adapter, remove its cover as shown and set its DIP switches according to the resolution you want to use, such as 16-inch mode. See your Macintosh documentation for instructions.



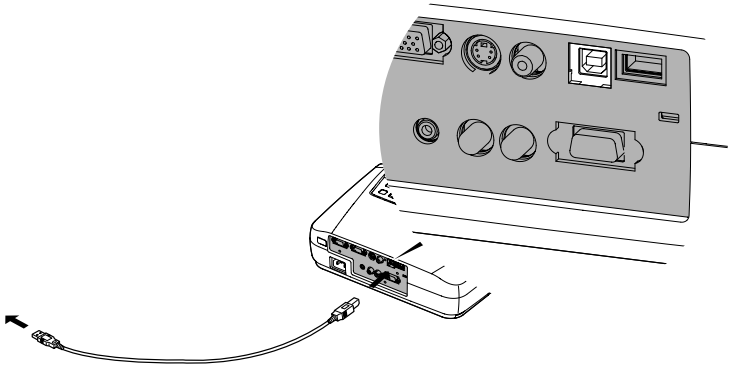
Replace the cover and connect the adapter to the free end of the computer video cable. Then plug the cable (with the adapter) into the video port on your Macintosh.

6. Tighten the screws on the connectors.

Connecting the Mouse Cable

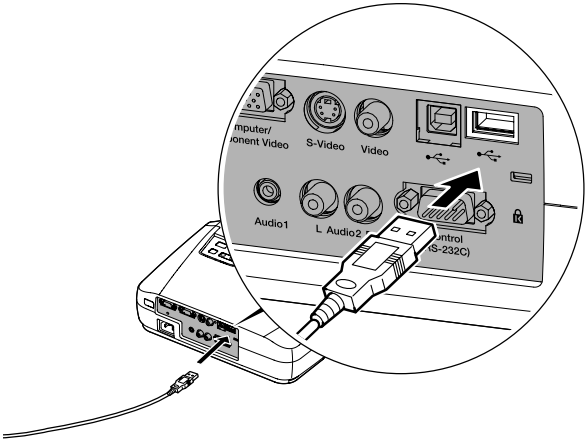
To use the remote control as a mouse, follow the steps below.

1. Connect one end of the mouse cable to the projector's USB port.



2. Disconnect your Macintosh's mouse cable. Connect the other end of the projector's mouse cable to a USB port on your Macintosh.

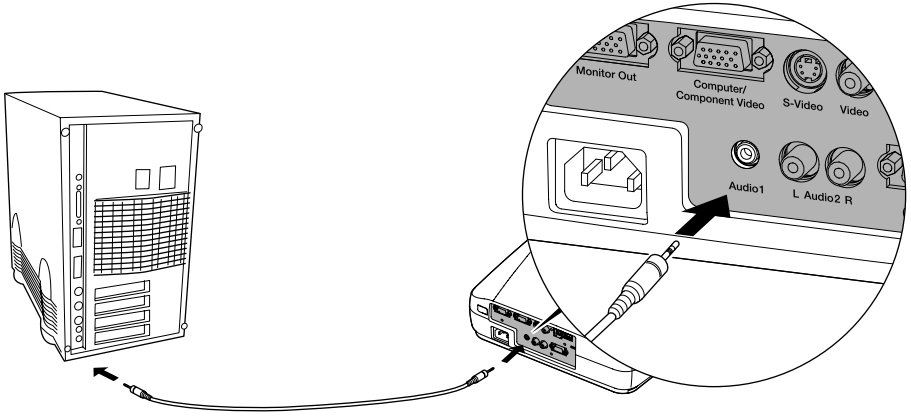
3. You can connect an external mouse to the USB Type A port or use the port as a USB hub to connect an external USB device, if you want.



Connecting the Audio Cable

If your presentation includes sound and you want to use the projector's built-in speaker, you can use a computer audio cable. The required cable (3.5-mm stereo miniplug cable) is available from computer or electronics dealers.

1. Connect one end of the audio cable to the Audio1 port on the projector.



2. Connect the other end of the audio cable to the speaker or audio-out jack on the Macintosh.

Connecting to a High-End Workstation

Your PowerLite projector is capable of remapping input resolutions up to 1600 × 1200 pixels (on the PowerLite 73c) or up to 1280 × 1024 pixels (on the PowerLite 53c). Since 1280 × 1024 pixels is the default resolution for most leading workstations, your projector is ideal for displaying workstation video output.

There is no standard for workstation video output. Workstations that follow the SXGA standard and use the HD15 (standard VGA) connector won't need an adapter cable or any special connection device. However, your system may vary; contact your computer dealer if you need help connecting your workstation.

B Appendix B: Notices

This appendix includes safety instructions and other important information about your EPSON PowerLite 53c/73c.

Important Safety Instructions

Follow these safety instructions when setting up and using the projector:

- Do not place the projector on an unstable cart, stand, or table.
- Do not use the projector near water or sources of heat.
- Use attachments only as recommended.
- Use the type of power source indicated on the projector. If you are not sure of the power available, consult your dealer or power company.
- Place the projector near a wall outlet where the plug can be easily unplugged.

  Placez le projecteur près d'une prise de contacte où la fiche peut être débranchée facilement.
- Insert the projector's two-wire plug into an electrical outlet. Do not hold the plug with wet hands.
- Take the following precautions for the plug. Failure to comply with these precautions could result in sparks or fire: Do not insert the plug into an outlet with dust present. Insert the plug firmly into the outlet.
- Do not overload wall outlets, extension cords, or integral convenience receptacles. This can cause fire or electric shock.
- Do not place the projector where the cord can be walked on. This may result in fraying or damage to the plug.
- Unplug the projector from the wall outlet before cleaning. Use a damp cloth for cleaning. Do not use liquid or aerosol cleaners.
- Do not block the slots and openings in the projector case. They provide ventilation and prevent the projector from overheating. Do not operate the projector on a sofa, rug, or other soft surface, or in a closed-in cabinet unless proper ventilation is provided.

- Never push objects of any kind through cabinet slots. Never spill liquid of any kind into the projector.
- Except as specifically explained in this *User's Guide*, do not attempt to service this product yourself. Refer all servicing to qualified service personnel. Opening or removing covers may expose you to dangerous voltages and other hazards.
- This product includes a lamp component that contains mercury. Please consult your state and local regulations regarding disposal or recycling. Do not put it in the trash.
- Unplug the projector during lightning storms or when it will not be used for extended periods.
- Do not place the projector and remote control on top of heat-producing equipment or in a hot location.
- Unplug the projector from the wall outlet and refer servicing to qualified service personnel under the following conditions: When the power cord or plug is damaged or frayed. If liquid has been spilled into the projector, or if it has been exposed to rain or water. If it does not operate normally when you follow the operating instructions, or if it exhibits a distinct change in performance, indicating a need for service. If it has been dropped or the housing has been damaged.
- If you use the projector in a country other than where you purchased it, use the correct power cord for that country.
- Do not stand on the projector or place heavy objects on it.
- Do not attempt to remove the lamp immediately after use. Allow the lamp to cool for approximately one hour before removing it.
- Do not use the projector outside of the required temperature range (41 to 95 °F). Doing so may cause an unstable display and an excessive load on the fan, leading to projector damage.
- Do not store the projector outside of the required temperature range (14 to 140 °F) or in direct sunlight for long periods of time. Doing so may cause damage to the case.
- Do not use the projector with the lens cap in place. The heat generated by the lamp may damage the cap.
- The liquid crystal display panel contains more than 99.99% active pixels. However, 0.01% of the pixels may be missing or constantly illuminated.

Remote Control Information

You can operate the projector by remote control via a line-of-sight infrared (IR) receiver at the front and rear of the projector. The projector may not respond to remote control commands under the following conditions:

- There is an object between the remote control IR emitter and the IR receiver on the projector.
- Ambient light is too bright.
- Certain types of fluorescent lighting are used.
- A strong light source shines into the IR receiver.
- Other equipment that emits infrared energy, such as a radiant room heater, is in the room.

These conditions commonly cause problems for most infrared-controlled equipment. Try the following:

- The remote control unit's battery may be low on power; replace it.
- Dim the ambient lighting and/or turn off any fluorescent lights.
- Close any window coverings and/or move the projector out of direct sunlight.
- Turn off other equipment that emits infrared energy.

If the remote control still does not work correctly, you can always run your computer-based presentation directly from the computer.

Declaration of Conformity

According to 47CFR, Part 2 and 15 Class B Personal Computers and Peripherals; and/or CPU Boards and Power Supplies used with Class B Personal Computers:

We:	Epson America, Inc.
Located at:	3840 Kilroy Airport Way MS: 3-13 Long Beach, CA 90806
Tel:	(562) 290-5254

Declare under sole responsibility that the product identified herein, complies with 47CFR Part 2 and 15 of the FCC rules as a Class B digital device. Each product marketed, is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47CFR §2.909. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Trade Name:	EPSON
Type of Product:	Projector
Model:	EMP-73/53, ELP-73/53

FCC Compliance Statement

For United States Users

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels which exceed the limits established by the FCC for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If this equipment has more than one interface connector, do not leave cables connected to unused interfaces. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

For Canadian Users

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le materiel brouilleur du Canada.

Warranty

Epson America, Inc. Limited Warranty

Basic Two-Year Warranty and 90-Day Lamp Warranty

What Is Covered: Epson America, Inc. ("EPSON") warrants to the first end user customer of the EPSON product enclosed with this limited warranty statement that the product, if purchased and used in the United States or Canada, conforms to the manufacturer's specifications and will be free from defects in workmanship and materials for a period of two (2) years from the date of original purchase (except that the warranty period is 90 days for projector lamps).

What EPSON Will Do To Correct Problems: If you elect carry-in warranty service, please bring the product securely packaged in its original container or an equivalent, along with proof of the date of original purchase, to your EPSON Dealer or EPSON Customer Care Center. EPSON will, at its option, repair or replace on an exchange basis the defective unit, without charge for parts or labor. When warranty service involves the exchange of the product or of a part, the item replaced becomes EPSON property. The exchanged product or part may be new or previously repaired to the EPSON standard of quality. Exchange or replacement products or parts assume the remaining warranty period of the product covered by this limited warranty. However, each replacement lamp carries the limited 90-day warranty stated above.

What This Warranty Does Not Cover: This warranty covers only normal consumer use in the United States and Canada. 24-hour-per-day use causes unusual strain and is not considered normal use. This warranty does not cover consumables (e.g., fuses), other than lamps. EPSON is not responsible for warranty service should the EPSON label or logo or the rating label or serial number be removed or should the product fail to be properly maintained or fail to function properly as a result of misuse, abuse, improper installation, neglect, improper shipping, damage caused by disasters such as fire, flood, and lightning, improper electrical current, software problems, interaction with non-EPSON products, or service other than by an EPSON Authorized Servicer. Postage, insurance, or shipping costs incurred in presenting your EPSON product for carry-in warranty service are your responsibility. If a claimed defect cannot be identified or reproduced in service, you will be held responsible for costs incurred.

THE WARRANTY AND REMEDY PROVIDED ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME LAWS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES. IF THESE LAWS APPLY, THEN ALL EXPRESS AND IMPLIED WARRANTIES ARE LIMITED TO THE WARRANTY PERIOD IDENTIFIED ABOVE. UNLESS STATED HEREIN, ANY STATEMENTS OR REPRESENTATIONS MADE BY ANY OTHER PERSON OR FIRM ARE VOID. EXCEPT AS PROVIDED IN THIS WRITTEN WARRANTY, NEITHER EPSON AMERICA, INC. NOR ITS AFFILIATES SHALL BE LIABLE FOR ANY LOSS, INCONVENIENCE, OR DAMAGE, INCLUDING DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, RESULTING FROM THE USE OR INABILITY TO USE THE EPSON PRODUCT, WHETHER RESULTING FROM BREACH OF WARRANTY OR ANY OTHER LEGAL THEORY. IF THE REMEDY ABOVE FAILS, EPSON'S ENTIRE LIABILITY SHALL BE LIMITED TO A REFUND OF THE PRICE PAID FOR THE EPSON PRODUCTS COVERED BY THIS LIMITED WARRANTY.

In Canada, warranties include both warranties and conditions.

Some jurisdictions do not allow limitations on how long an implied warranty lasts and some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from jurisdiction to jurisdiction.

To locate the Authorized EPSON Servicer nearest you, call the EPSON Connection[SM] at (800) 637-7661 + PIN or (562) 276-4394 in the U.S. and (905) 709-3839 in Canada or write to: Epson America, Inc., P.O. Box 93012, Long Beach, CA 90809-3012.

C Appendix C: Technical Specifications

General

Type of display	Poly-silicon TFT active matrix 73: with MLA (Micro Lens Array) 53: without MLA (Micro Lens Array)
LCD panels (3)	Diagonal size: 0.7 inches (17.8 mm)
Lens	F=1.70 to 1.87, f=21.3 to 25.6 mm
Resolution	1024 × 768 pixels (73) 800 × 600 pixels (53); (native formats)
Color reproduction	Full color, 16.77 million colors
Brightness (ANSI)	53: 1700 lumens (High brightness mode) 1400 lumens (Low brightness mode) 73: 1500 lumens (High brightness mode) 1200 lumens (Low brightness mode)
Contrast ratio	500:1
Image size	30 to 300 inches (0.8 to 7.6 meters)
Projection distance	2.9 to 34.4 feet (0.9 to 10.5 meters)
Projection methods	Front, rear, upside-down (ceiling mount)
Internal sound system	1 W monaural
Optical aspect ratio	4:3 (horizontal : vertical)
Zoom ratio	1:1.2
Noise level	36 dB (High brightness mode) 33 dB (Low brightness mode)
Keystone correction angle	± 15° vertical (maximum)

Projection Lamp

Power consumption	165 W
Lamp life	About 1500 hours
Part number	V13H010L21

Remote Control

Range	20 feet (6 meters)
Battery	CR2025 lithium

Mouse Compatibility

Supports USB

Dimensions

Height	3.4 to 3.8 inches (87 to 97 mm)
Width	12.4 inches (315 mm)
Depth	9.5 inches (240 mm)
Weight	6.4 lb (2.9 kg)

Electrical

Rated frequency	50/60 Hz
Power supply	100 to 120 VAC, 2.6 A 200 to 240 VAC, 1.3 A
Power consumption	Operating: 240 W Standby: 2.6 W

Environmental

Temperature	Operating: 41 to 95 °F (5 to 35 °C)
	Storage: 14 to 140 °F (–10 to 60 °C)
Humidity	Operating: 20 to 80% RH, non-condensing
	Storage: 10 to 90% RH, non-condensing

Safety and Approvals

United States	FCC 47CFR Part15B Class B (DoC) UL1950 Rev. 3
Canada	ICES-003 Class B CSA C22.2 No. 950-95 (cUL)
CE Marking	Directive 73/23/EEC, 89/336/EEC EN 55022, EN 55024

Compatible Video Formats

The projector supports NTSC, PAL, and SECAM international video standards, as well as the monitor and HDTV display formats listed below.

To project images output from a computer, the computer's video card must be set at a refresh rate (vertical frequency) that's compatible with the projector; see the following table for compatible formats. As noted below, some images are automatically resized to display in one of the projector's "native" formats (such as XGA). In addition, the frequencies of some computers may not allow images to display correctly; see your computer's documentation for details.

Mode	Refresh Rate (Hz)	Resolution
VGAEGA	70	640 × 350*
VGA—60	60	640 × 480*
VESA—72	72	640 × 480*
VESA—75	75	640 × 480*
VESA—85	85	640 × 480*

Mode	Refresh Rate (Hz)	Resolution
SVGA—56	56	800 × 600* [1]
SVGA—60	60	800 × 600* [1]
SVGA—72	72	800 × 600* [1]
SVGA—75	75	800 × 600* [1]
SVGA—85	85	800 × 600* [1]
XGA—43i	43	1024 × 768* [2]
XGA—60	60	1024 × 768* [2]
XGA—70	70	1024 × 768* [2]
XGA—75	75	1024 × 768* [2]
XGA—85	85	1024 × 768* [2]
SXGA1—70	70	1152 × 864*
SXGA1—75	75	1152 × 864*
SXGA1—85	85	1152 × 864*
SXGA2—60	60	1280 × 960*
SXGA2—75	75	1280 × 960*
SXGA2—85	85	1280 × 960*
SXGA3—43i	43	1280 × 1024*
SXGA3—60	60	1280 × 1024*
SXGA3—75	75	1280 × 1024*
SXGA3—85	85	1280 × 1024*
UXGA—48i	48	1600 × 1200* [3]
UXGA—60	60	1600 × 1200* [3]
MAC13	67	640 × 480*
MAC16	75	832 × 624*
MAC19—60	59	1024 × 768*
MAC19	75	1024 × 768* [2]
MAC21	75	1152 × 870*
NTSC	60	—
NTSC 4:3	60	—
PAL	50	—
M-PAL	60	—
N-PAL	50	—
PAL—60	60	—
SECAM	50	—

Mode	Refresh Rate (Hz)	Resolution
HDTV (480i)	59.94	720 × 480*
HDTV (480p)	59.94	720 × 480*
HDTV (575i)	50	720 × 574*
HDTV (575p)	50	720 × 574*
HDTV (720p)	60	1280 × 720*
HDTV (1080i)	60	1920 × 1080*
HDTV (1080i) 33.75/ 31.25	50	1920 × 1080*

* The image is resized using EPSON's SizeWise Technology.

1 Resized on the PowerLite 73c only; native mode on the PowerLite 53c.

2 Resized on the PowerLite 53c only; native mode on the PowerLite 73c.

3 Resized on the PowerLite 73c only; not available on the PowerLite 53c.

Computer Video Port Pin Assignments

The Computer port is a female video RGB, 15-pin micro-D-style connector. Here are its pin assignments:

Pin no.	Computer port
1	Red video
2	Green video
3	Blue video
4	GND
5	GND
6	Red GND
7	Green GND
8	Blue GND
9	Reserved
10	Synchronous GND
11	GND
12	SDA
13	Horizontal sync / composite sync
14	Vertical sync
15	SCL

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